



# **Unity Health Bariatric Centre of Excellence**

# **Bariatric Surgery Program**

4th Edition Guidebook



# Helping you on your path to healthy living

Please bring this book with you to your Pre-Surgery appointments, hospital stay, and follow-up appointments.

Unity Health Toronto - Providence Healthcare 3276 St. Clair Ave. East, Toronto, ON M1L 1W1

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Bariatric Surgery Workbook

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## Information about this Bariatric Surgery Program Guidebook

The Ontario Bariatric Network is an Ontario Ministry of Health and Long-Term Care project featuring regional bariatric programs, general information and education.

## For more information go to:

www.ontariobariatricnetwork.ca

## Other websites to investigate include:

- www.webmd.com
- www.obesityhelp.com
- www.obesitynetwork.ca/public

The information in this book is to be used for informational purposes only and is not intended as a substitute for professional medical advice, diagnosis or treatment. Please consult your health care provider for advice about a specific medical condition. A single copy of this book may be reprinted for non-commercial personal use only.

Products mentioned in this book are used as examples only. Alternatives to these products may be used instead of the mentioned products with the advice of a health care professional and your bariatric health care team.

## **Acknowledgements:**

This guide to Bariatric Surgery Program is adapted from the version developed by the Department of Nursing Practice and Education, and Center of Excellence Bariatric Surgery Program, St. Joseph's Healthcare Hamilton 2007 – 2016.

The section on Mental Health and Wellbeing in this guide is adapted from the version created by the Bariatric Centre of Excellence at Humber River Hospital 2017.

#### Introduction

You have decided to have bariatric surgery. This book provides information that will help you prepare for this surgery and your new life after surgery.

You, your family, friends and supports can refer to this book and may need to read the information many times.

Please bring this book with you to all of your appointments before and after surgery and to the hospital when you have surgery.

#### **Health Care Team**

You will work closely with your health care team. We are here to support and guide you before, during and after surgery.

There is a list of your health care team members' roles on page 6. Fill in their names as you meet the members of your team.

#### Research at Unity Health Toronto - Providence Healthcare

Research helps to improve the treatments that we provide, leading to better care for patients. You may be asked to take part in a research study.

If you are interested in taking part in a study, be sure you understand the details of the study and how you would be involved before you sign a consent form.

If you do not want to be in a research study, your care will not be affected.

## Teaching at Unity Health Toronto - Providence Healthcare

Unity Health Toronto - Providence Healthcare is a teaching hospital. This means that you may have students involved in your care. We welcome students from all health care professions. We will ask for your consent to have students involved in your care.

# Where to Go for Appointments and More

Pre-surgery and Post-surgery appointments

Place	Location	Telephone / Email
Unity Health Bariatric Centre of Excellence (BCOE)  For your pre-operative & post-operative appointments and follow-ups.  Visits may be in-person or virtual, depending on the nature of your appointment and individual needs.	Address: Providence Healthcare Unity Health Toronto 3276 St. Clair Ave. E, Toronto, ON M1L 1W1  Location: B1 level  Getting here: Enter the building at the east side of the campus at the "CLINICS" Entrance, go into the clinics lobby and check-in at the registration desk	416-285-3666 ext. 54767 Email: BariatricCentre.PHC@unity health.to
Outpatient Pharmacy at Providence Healthcare  For filling your prescriptions, liquid meal replacement, multi vitamins, or for services including consultation and medication reviews as needed.	Address: Providence Healthcare Unity Health Toronto 3276 St. Clair Ave. E, Toronto, ON M1L 1W1  Location: B2 level  Getting here: Enter the building at the east side of the campus at the "CLINICS" Entrance, take the B1 elevator to level 2, and walk straight towards the end of the hallway where the clinic will be on your right; Alternatively, enter through the main entrance (by the Tim Hortons).	416-285-3805  Monday to Friday 8 a.m. to 5 p.m.

# Where to Go for Appointments and More

Surgery and Pre-operative Appointments

Exact location and processes depend on where your surgery will take place.

More information will be provided to you by the team.

Place	Location	Telephone
Michael Garron Hospital	825 Coxwell Avenue Toronto, Ontario M4C 3E7	416-469-6487
St. Joseph's Health Centre Toronto Unity Health Toronto	30 The Queensway Toronto, Ontario M6R 1B5	416-530-6000

## **BCOE Health Care Team Members**

Surgeon/ Resident	
Medical Internist	
Clinic Nurse	
Dietitian	
Social Worker	
Pharmacist	
Other:	
Other:	

## NO-SHOW/LATE CANCELLATION/ LATE ARRIVAL POLICY:

If you are unable to attend your scheduled appointment, please call the clinic to cancel and/or reschedule your appointment. Cancellations with less than 24 hours' notice or No Show may result in a \$50 cancellation fee.

## **Pre-Surgery Appointments\*:**

## **Seven Initial Appointments**

\*\*\*\*\*You may be required to have one or more follow up appointments with any of our providers in addition to these seven initial appointment.

\*\*\*\*\* You may also be referred for additional tests and consultations not indicated in the chart below. For example: psychiatry, endocrinology, hematology, rheumatology, an ECG, repeat bloodwork, cardiac testing, or a sleep study

Appointment	Date	Time	Location
Pharmacist			Providence Healthcare
Nurse			Providence Healthcare
Internal Medicine			Providence Healthcare
Social Worker			Providence Healthcare
Nutrition Class			Providence Healthcare
Dietitian			Providence Healthcare
Surgeon			

## **Post-Surgery Follow-up Appointments\*:**

<sup>\*\*\*</sup>A reminder to send in 3 days of food journals prior to all post-op appointments with the Dietitian

1 week with Pharmacist and Nurse	Providence Healthcare
1 month with Dietitian	Providence Healthcare
3 month with Dietitian	Providence Healthcare
6 month with Nurse or Dietitian and Social worker	Providence Healthcare
1 year with Pharmacist, Nurse, Dietitian and Social Worker	Providence Healthcare

<sup>\*\*\*</sup>Bloodwork must be done prior to 3, 6, and 12 months post-op appointments.

## **What is Obesity**

#### What does bariatric mean?

Bariatric is the medical word used to describe the treatment and management of weight. Bariatric programs help patients improve their health and well-being by treating and managing weight.

## What causes obesity?

Obesity is a **chronic condition** that needs to be managed for the rest of your life. You have probably done some reading and research of your own by now and know that there is not just one cause. Research has shown that there are many reasons for obesity such as:

- genetic
- physiological
- metabolic
- hormonal
- psychological
- behavioural
- sociocultural
- environmental

Once you have obesity, there is no cure for it and you will need to manage this condition for the rest of your life.

## Why can obesity be harmful to health?

This is not an easy question to answer. Research has shown that there are many health problems that can result from obesity such as:

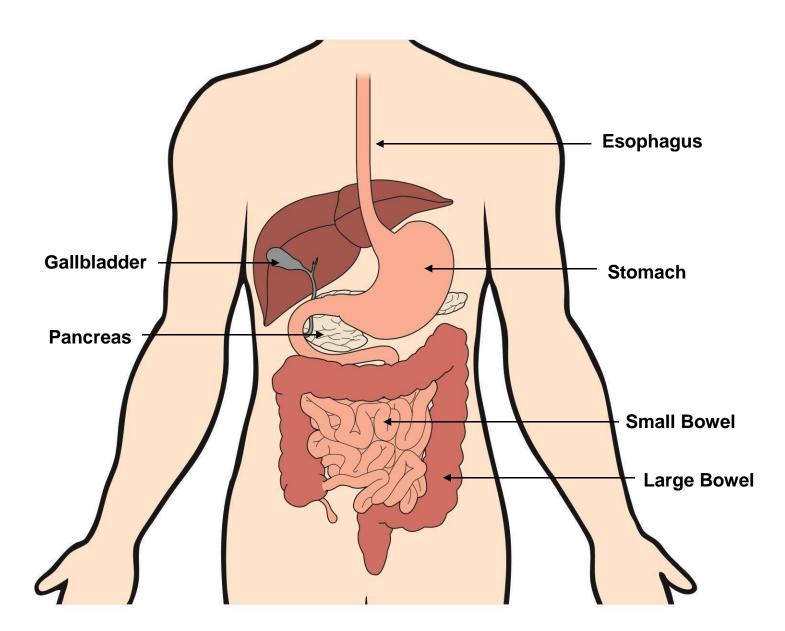
- hypertension
- heart disease
- · gastro-esophageal reflux disease
- depression and/or anxiety
- respiratory disorders
- liver and kidney disorders
- high cholesterol
- sleep apnea
- type 2 diabetes
- infertility
- joint pain and/or osteoarthritis and/or gout
- certain cancers

# **Learning the Words and Pictures**

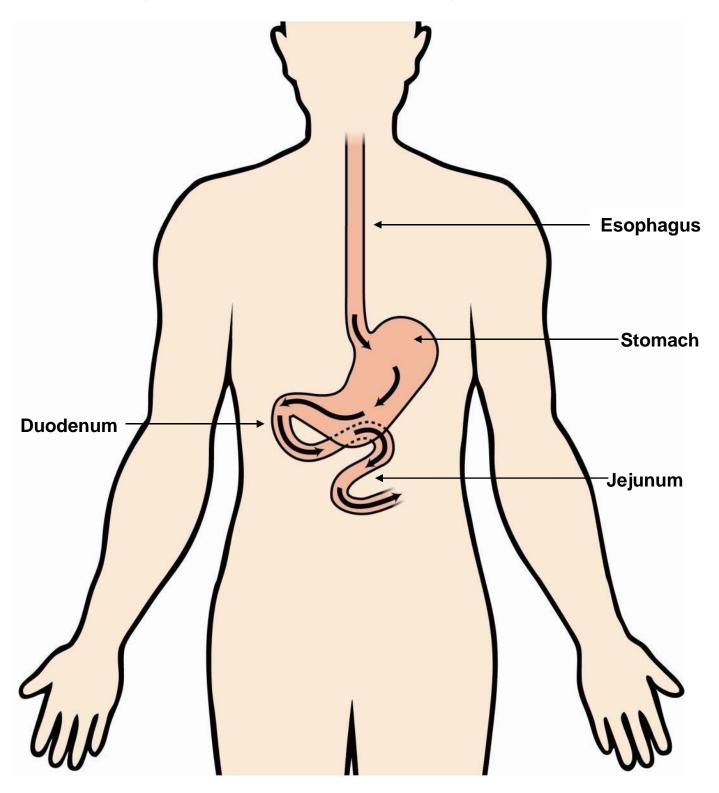
# Here are some words and pictures to help you understand gastric bypass and vertical sleeve gastrectomy surgery:

Esophagus: (food tube)	The esophagus is the tube that carries the food you eat and drink from your mouth to your stomach.
Gallbladder:	The gallbladder stores bile produced by the liver. Bile is a digestive liquid needed to help break down food you eat and drink. Bile helps digestion by breaking down fat for example. The gallbladder releases bile when the food leaves the stomach and enters the small bowel.
Pancreas:	The pancreas produces digestive liquids and enzymes that help in digestion. It also produces the hormone insulin to regulate the amount of glucose (sugar) in the body.
Stomach:	The stomach breaks food into small pieces so your body can use it for energy.
Small bowel: (small intestine)	The food moves from the stomach to the small bowel first. The food is broken into very small pieces and is absorbed into the blood as the muscles push it along. The small bowel is also called the small intestine. The small bowel or intestine has 3 sections called the duodenum, jejunum and ileum.
	The 2 sections of the small bowel involved in this surgery are called the duodenum and jejunum. They are shown in the picture on page 11.
Large bowel: (large intestine or colon)	The large bowel is the last part of the digestive system. Water is absorbed here and the remaining waste material is stored until you have a bowel movement. The large bowel is also called the large intestine or colon.

# A look inside before surgery:



# Overview of the gastrointestinal system before surgery:



#### What happens with Gastric Bypass Surgery?

During this surgery, your surgeon makes a small stomach pouch at the end of the esophagus. The pouch is made by stapling the top part of the stomach. The larger part of the stomach is stapled closed. The small intestine is cut at the jejunum and attached to the stomach pouch.

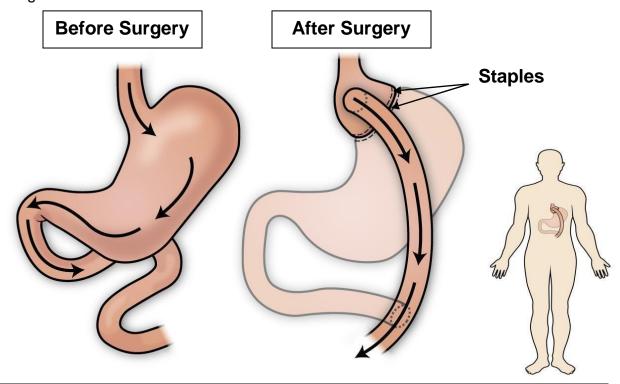
As you can see in the picture, most of the stomach is bypassed and not used any more. The duodenum is also bypassed. The larger stomach is still left in place and the normal digestive juices from the stomach and duodenum help digest food when rejoined lower down on the small bowel. The food you eat and drink will now go into the new, smaller stomach pouch and then to the jejunum.

The new, smaller stomach limits the amount of food you can eat since it holds less food. You also feel less hungry as you do not have as many hunger hormones. You feel more satisfied eating less food.

Less digestive juices and bypassing the duodenum means your body absorbs less nutrients including vitamins and minerals. Bypassing part of the small intestine also means that some hormones which affect metabolism are also changed.

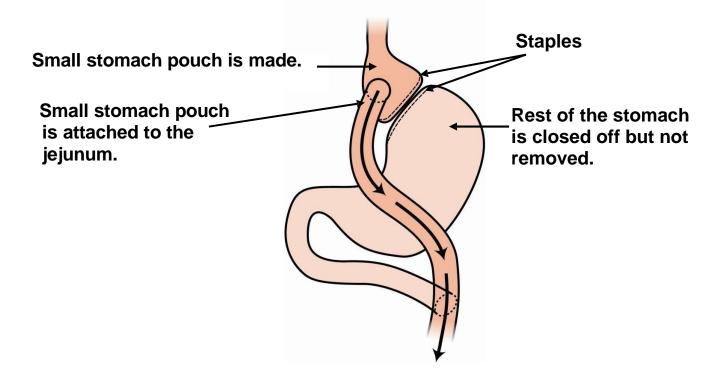
At first, the pouch holds about 30 ml (2 tablespoons). Normally a stomach holds between 1000 and 1500 ml (35 to 50 ounces or 4 to 6 cups). Over time the pouch can hold about 250 ml (8 ounces or 1 cup).

Since the amount you can eat is less, it is important to make healthy food choices for weight management and overall health.

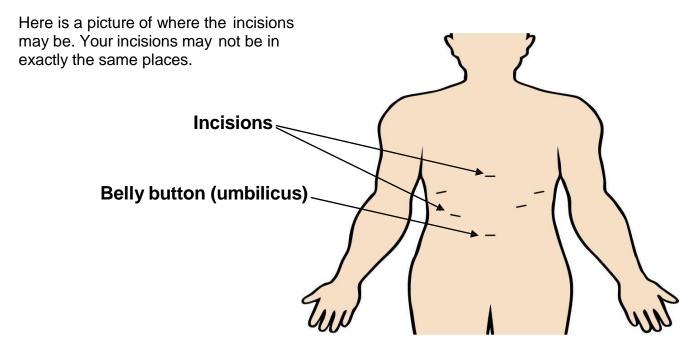


Arrows  $\downarrow$  show food moving through body before and after surgery.

# **Closer Look at Gastric Bypass Surgery**



This surgery is done using 5 to 6 small incisions. Each incision is 5 to 12 millimetres (mm) long. One incision is used to insert a small camera so the doctor can see. The other incisions are used for instruments needed to do the surgery. The incisions are closed with dissolvable stitches and special tape on top called Steri-Strips.

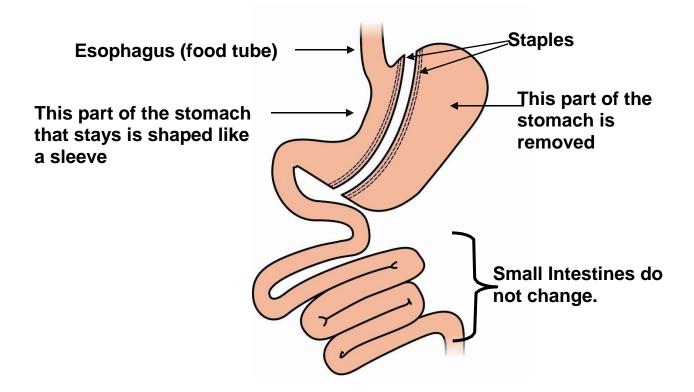


### What happens with Vertical Sleeve Gastrectomy Surgery?

Vertical sleeve gastrectomy (VSG) is a restrictive, laparoscopic surgery. During this surgery most of the stomach is removed. Since the stomach is smaller, you feel full sooner.

The smaller stomach limits the amount of food you can eat since it holds less food. You also feel less hungry as you do not have as many hunger hormones. You feel more satisfied eating less food.

The stomach is cut creating a long pouch that connects the esophagus to the small intestine. The pouch or 'sleeve' is stapled and the rest of the stomach is removed.



At first, the pouch holds about 100 ml to 120 ml (3 to 4 ounces or ½ cup). This depends on the surgeon doing the surgery. Normally a stomach holds between 1000 and 1500 ml (35 to 50 ounces or 4 to 6 cups). As shown in the picture, the way the food leaves the stomach does not change. The nerves are also left intact. Therefore the stomach is smaller but the function stays almost the same. Over time the pouch can hold about 240 ml (8 ounces or 1 cup).

None of the intestines are bypassed so food leaves the stomach and moves through the intestines normally. The smaller stomach continues to function normally.

Since the amount you can eat is less, it is important to make healthy food choices for weight management and overall health.

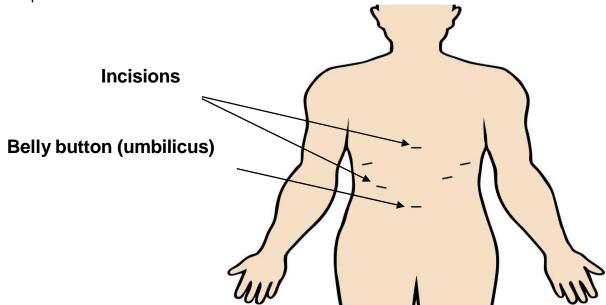
Vertical sleeve gastrectomy cannot be reversed.

VSG surgery may be done for people who:

- Have medical problems such as anemia, stomach ulcers and inflammatory bowel disease that would place them at high risk for surgery involving intestinal bypass.
- Have other conditions such as previous multiple abdominal surgery that would place them at high risk for surgery involving intestinal bypass.
- Are booked to have gastric bypass surgery but when doing the surgery the surgeon decides gastric sleeve is a safer option at this time.
- Have a lot of weight to lose and the surgeon decides that VSG is the first step possibly followed by another form of weight loss surgery when it is safe to do so.

VSG surgery is done using 5 to 6 small incisions. Each incision is 5 to 12 millimetres (mm) long. One incision is used to insert a small camera so the doctor can see. The other incisions are used for instruments needed to do the surgery. The incisions are closed with dissolvable stitches and special tape on top called Steri-Strips.

Here is a picture of where the incisions may be. Your incisions may not be in exactly the same places.



## What to Expect After Surgery

### You and only you

Since each person is different your journey will not be the same as anyone else. Try to avoid comparing yourself to others in the program.

After surgery, some people lose more weight and some people lose less weight; some people lose weight quickly while others lose weight slower.

Always keep in mind that you and your body need to do this in your own time. Remember that the real benefit of surgery is not necessarily how much weight you will lose, but the ability to keep most of it off in the long-term.

Most people lose between 20% and 30% of their pre-surgery total body weight within the first 2 years after surgery. However, the majority of your weight loss will happen in the first 6 to 12 months. For example, a person starting at 300 pounds (136 kg) before surgery will typically lose 60 to 90 pounds (27 to 40 kg).

The focus in the bariatric program is to support you in following a healthy lifestyle and not setting goal weights.

### After 1 or 2 years

After the first or second year when your weight loss has slowed or stopped, you will typically gain some weight back slowly over time. People often regain 5 to 10% of the weight they lost within 5 years. This is normal and does not mean that you are doing anything wrong. Some people regain more than 10%.

It is important to remember that weight regain is complicated and not completely understood. It is very important that you contact the clinic if you are concerned about weight regain down the road.

# What happens 12 months post-surgery? Annual PCP Follow Ups

Annual assessment and post-ops care will be transitioned from the bariatric clinics to the primary care provider (PCPs) at 1 year post-surgery, with the first annual assessment facilitated by PCPs at 2 years post-surgery and then annually at 3, 4, and 5 year post-op.

PCPs will be provided with an annual assessment package with a checklist to guide the assessments and a questionnaire to be completed by the patient; we ask that these forms are completed and faxed back to us after each annual assessment

### Who is Responsible for What?

SHARING POST-OP	ERATIVE CARE FOLLOWI	NG BARIATRIC SURGERY
	Bariatric Clinic	Primary Care Provider
Management of obesity-related comorbidities		+
Management of routine, non- urgent issues (e.g., constipation, hair loss, excess skin, etc.)		
Ordering & Management of blood testing (**see below)	PRE-OPERATIVELY from referral to surgery	POST-OPERATIVELY ongoing after surgery
Management of early post- operative issues	+	
Management of significant dysphagia, nausea & abdominal pain in the 1st post-op year	•	
Routine Follow-up Assessments	0-12 months post-op	Annually at 2, 3, 4 & 5 years post-op

The patient is scheduled for routine follow-up with the bariatric clinic at 1, 3, 6 & 12 months postbariatric surgery. We kindly ask that PCPs manage all bloodwork after the patient has had surgery; your patient will be instructed to **pick up a standard laboratory requisition form from your office** prior to each bariatric clinic appointment.

## Your best weight

Your best weight is the weight you can maintain while still eating and living in a way that you can enjoy and sustain. Your best weight may never be the ideal weight that you want. This is very important to keep in mind.

Remember that as little as 5% to 10% weight loss has been shown to improve weight related illnesses such as the problems shown on page 8.

## Your lifestyle plan

As part of your lifestyle plan, you will need to follow a healthy diet and stay active.

If you do not maintain a healthy lifestyle, you will gain weight back and experience a relapse in your obesity related health problems.

The graph on the next page was created by Dr. Arya Sharma, a Canadian weight loss expert. The graph shows what generally happens after surgery.

## **Stages of Obesity Treatment**



Source: www.drsharma.ca

#### Remember:

To keep weight off in the long term, you must always continue with the healthy behaviours you have established. If you stop treatment, you will regain weight.

Stopping treatment can mean many things:

- not following recommendations for healthy eating and exercise
- not attending your follow-up appointments
- not attending to your physical and/or mental health needs

## Your Mental Health and Well Being

When you are thinking about having bariatric surgery, our team meets with you to talk about your history of physical, emotional and mental health problems. We collect this type of information so we can make a plan for your care before and after surgery. Our goal is to help you prepare physically and emotionally for surgery and the changes that occur after.

A reality for many people who struggle with weight issues is that they may have:

- problem eating behaviours such as not consistently eating meals and/or binge eating
- concerns with body image
- mood disorders such as depression or bipolar disorder
- anxiety disorders
- post-traumatic stress disorder
- substance use problems with alcohol, tobacco and/or recreational drugs

Having a history of these problems will not prevent you from having bariatric surgery. It just means that we will need to work together to develop a plan of care that ensures that bariatric surgery is both safe and successful. Your team of bariatric professionals is here to help.

### **Emotional Eating and Coping**

People eat for more than just hunger. Sometimes people eat to bring comfort, relieve stress, or as a reward. When we eat for reasons outside of physical hunger, we are emotionally eating. While eating may satisfy our feelings for now, it doesn't fix emotional problems in the long term.

All of us will occasionally eat for more than just physical hunger. For example, certain foods are often part of celebrations or other life events. Emotional eating becomes a problem when it becomes your primary emotional coping mechanism. If your first instinct is to look for a snack whenever you're upset, angry, lonely, stressed, exhausted, or bored, then this may suggest you are struggling with emotional eating. This can create an unhealthy cycle where you are unable to address your emotions or problems. Part of your journey in this program may be to work on building alternative coping strategies.

## Signs you may be eating emotionally:

- You eat more when you're feeling stressed, angry, lonely, or upset
- You continue eating when you are full or eat when you're not hungry
- You eat to improve your mood
- You eat as a reward
- Food creates feelings of safety for you or feels like a friend
- You feel powerless over food or that you've lost control
- You eat out of habit or because it is part of your routine (for example, you always eat snacks while you watch your favorite TV show)

#### Is it emotional or physical hunger? How to tell the difference

Physical Hunger	Emotional Hunger
Comes on slowly	Comes on all of a sudden
Can be delayed	Must be satisfied right now
Lots of food looks good – you are open to options	You have cravings for specific foods
Hunger cues stop when you are full	Hunger may continue even when you are full
Eating for physical hunger generally doesn't bring on feelings of guilt, shame or blame	Can leave you with feelings of guilt, shame, blame, or that you've lost control

### **Coping with Emotional Eating**

People who emotionally eat often feel that they are powerless over food cravings. When you feel an urge to eat, it might feel overwhelming or like an unbearable tension that makes you want to eat right now! It might feel like eating is the only thing on your mind.

If you have had difficulty resisting these intense urges in the past, you might believe that your willpower isn't strong enough to give you power over emotional eating. However, you have more power than you think! Keeping an emotional eating diary and practicing mindful eating are both good ways to start to conquer your cravings.

## **Keep an Emotional Eating Diary**

One of the best ways to identify the patterns behind your emotional eating is to keep track with an Emotional Food Journal (see workbook section at the back of this book for an example).

Every time you feel the urge to overeat or feel driven to reach for your comfort food, take a moment to think: is there something that triggered this urge to eat? Often there is an upsetting or triggering event that kick started the emotional eating cycle. Common examples include workplace stressors, interpersonal conflict, parenting stress, or financial stress. Once you start tracking your emotional eating, you will probably see a pattern emerge. Once you can identify your emotional eating triggers, your next step will be to figure out alternative ways to cope with your feelings.

### Mindful Eating

Mindful eating means paying attention to what you are eating while you are eating it, before you finish your meal. Sometimes people find it helpful to pay attention to the 5 senses (sight, smell, taste, hearing, touch) while eating. For example, what does your food taste like? What is the texture like? Mindful eating also means learning to listen to your body's hunger cues and fullness cues, to know when you should start and stop eating. Reconnecting with your body and listening to your feelings of hunger and fullness are the first steps to working on emotional eating. If you are physically full but feel emotionally hungry, what is something else you can do instead to satisfy that feeling?

### **Binge Eating and Other Problem Eating Behaviours**

Binge eating is one of the most common eating behaviour problems. Binge eating involves eating large amounts of food in short periods of time. When a person binge eats, they may feel a loss of control over eating such as being unable to resist or stop eating certain foods. A person who binge eats often feels guilt, anger and shame. A person who binge eats may also experience physical problems such as pain or discomfort from overeating.

Problem eating behaviours can also be restricting the amount of food you eat to help with weight management or to make up for eating in unhealthy ways, intentionally vomiting after eating, using laxatives and/or over exercising to get rid of calories eaten.

It is important to know that bariatric surgery does not fix these problem eating patterns. Some people continue to struggle even after having bariatric surgery.

Problem eating behaviours can improve immediately after having bariatric surgery. This is because most people don't experience hunger for the first 12 months after surgery. Because people are not hungry after surgery, they may engage in other unhealthy behaviours, such as skipping meals. When people start to experience hunger again, they are at risk for returning to problem eating behaviours. If this happens and people don't obtain the necessary help, they are at increased risk of regaining their weight.

Having a history of problem eating behaviours will not prevent you from having bariatric surgery. It just means that we will need to work together to develop a plan of care that ensures that bariatric surgery is both safe and successful. Your team of bariatric professionals is here to help.

### **Depression**

Depression is consistently having feelings of low mood or sadness and/or loss of interest in activities that were once interesting or enjoyable. Other symptoms of depression may include appetite/weight changes, sleeping problems, concentration problems, unusual fatigue and low energy level, restlessness, feelings of worthlessness, and thoughts of death/suicide. These symptoms last for at least a few weeks or longer, and can come and go over time. Depression can affect life in many ways. It can negatively impact relationships, employment, or doing things in life that people need to do.

Some people who seek bariatric surgery have a history of depression, and other people can develop depression after having surgery.

There are many effective treatments for depression.

Having a history of depression will not prevent you from having bariatric surgery. It just means that we will need to work together to develop a plan of care that ensures that bariatric surgery is both safe and successful. Your team at the BCOE is here to help.

#### Substance Use

Some people choose to use substances such as alcohol, tobacco products, or other recreational drugs for a variety of different reasons. The use of these substances can seriously complicate the pre-operative and post-operative phases of surgery. They can prevent your body from healing after surgery and can increase your risk of developing stomach ulcers.

After surgery your body will be more sensitive to certain substances such as alcohol. This means substances will be absorbed by your body more quickly making you feel the effects more easily and increasing the risk of becoming dependent on them. There are also safety risks when driving a car or operating machinery.

There are some people who develop substance use problems after surgery that have never had these problems before. Please let us know if you are using any of these substances. We will work with you to develop an appropriate plan to help you be safe and successful.

Having a history of using substances will not prevent you from having bariatric surgery. It just means that we will need to work together to develop a plan of care that ensures that bariatric surgery is both safe and successful. Your team of bariatric professionals is here to help.

### **Prioritizing Self Care**

Making changes can be overwhelming and sometimes tiring. That's why it's so important you prioritize taking care of yourself while trying to make these big changes. Self-care is a way of looking after your own needs and making sure you have time to do things that feel good to you. The goal would be to include self-care 1 to 2 times daily but remember, new habits can be hard to build. Start off small and build on your successes. Some self-care ideas include: knitting, sitting outside, enjoying a bath or shower, phoning a friend, going for a walk in nature, or bird watching. Self-care can also just be a small moment you take to yourself. Self-care is anything that feels nourishing and provides you with a break from day to day stressors.

#### **Medications and Mental Health**

If you take medications to manage your mental health, you must closely monitor your symptoms after surgery. The surgery can change the absorption of some medications. Call your family doctor or health care provider if you notice changes in your symptoms of mental health.

#### Do not stop any medication or change doses on your own.

Many people report feeling better about their mental health and well-being after surgery. Some people face some new or different issues such as feeling pleased about their weight loss but then feeling negative about having loose or excess skin. Other people have a challenging time adjusting to their new lifestyle after bariatric surgery which can result in feelings of frustration.

We as a team will work closely with you to address any of these concerns. We need to work together to help your experience with bariatric surgery be successful. It is important to be honest with us about your current and past history. It is important to keep us updated on new or developing concerns. We will work with you to ensure that bariatric surgery will be as safe and successful as possible.

# **Getting Ready for Surgery**

There are many things you need to do to get ready for surgery. This section describes the guidelines to follow.

## **6 Months before Surgery**

### Stop recreational drug use immediately

Some people choose to use recreational substances (alcohol, marijuana, nicotine, tobacco, and caffeine) for a variety of different reasons. Some people use them to help manage their emotions or feelings, some people use them to help manage physical issues (e.g. chronic pain, sleep problems), and other people use them for fun. We know that using recreational substances before and after bariatric surgery can cause physical problems with the surgery and recovery, can cause new problems, or make other existing problems worse. Let the team know about any and all substances that you are, or have recently used. We can help you understand some of the possible problems they can cause with surgery and work with you to put together a plan to help you be safe.

To be safe to proceed with bariatric surgery, you must have stopped using recreational substances for at least 6 months before surgery. You must also agree to not use these after surgery. We will work with you to develop a plan to help you be safe and successful with surgery.

## Stop smoking and/or using nicotine products and marijuana immediately

Smoking tobacco products, nicotine, marijuana, and other inhaled substances can delay wound healing and lead to problems such as lung infections and pneumonia. They also increase the risk of bleeding, post-operative leaks, and life-threatening ulcers in the stomach pouch after surgery.

To be safe to proceed with bariatric surgery, you must have stopped smoking and/or using inhaled substances for at least 6 months before surgery. This includes nicotine gum, e-cigarettes (vaping) and similar products. You must also agree to not smoke and/or use nicotine products or marijuana after.

If you are taking marijuana for medical reasons, the bariatric team will review your chart and communicate with your prescribing physician to become aware of your management program. Anyone on medicinal marijuana will be considered for surgery on an individual basis.

Providence BCoE offers smoking cessation consultations. For additional help quitting, contact your health care provider, pharmacist, or the Smokers' Helpline. Make sure you tell anyone helping you that you are not allowed to use any type of nicotine products as well.

Smokers' Helpline: 1-877-513-5333
 Website: www.smokershelpline.ca

#### Remember:

The use of substances like alcohol, tobacco and recreational substances can complicate bariatric surgery before and after the operation. If you use any of these substances, even infrequently, talk to a member of your health care team so we can find ways to help and support you through the changes you need to make.

## 2 Months before Surgery

## Stop caffeine – 2 months before surgery

Caffeine irritates the lining of the stomach. Since you have a very small new stomach after surgery, you cannot have caffeine for at least 2 months.

Since stopping caffeine can take some time you need to do this before surgery. When you first stop, you may get a headache and feel tired. This is called withdrawal. You need to withdraw from caffeine at least 2 months before surgery so you do not have this problem after surgery.

You will not be able to have caffeine for at least 3 months after surgery as well. However, you can have decaffeinated drinks. Your doctor or dietitian will tell you if or when you can have caffeine again after surgery.

## 2 Months before Surgery

### Stop alcohol (includes liquor, beer and wine) – 2 months before surgery

There is an increased prevalence of patients undergoing bariatric surgery developing a substance dependency or addiction post-operatively. Alcohol irritates the lining of the stomach and intestines and can lead to ulcers. Since you have a very small new stomach after surgery, you cannot have alcohol. Alcohol can also cause liver damage. When you lose weight fast, your liver takes up waste products and toxins produced in your body. This puts stress on the liver and can cause many problems.

Since stopping alcohol can take some time, you need to do this before surgery. You need to withdraw from alcohol at least 2 months before surgery so you can avoid problems after surgery.

After surgery, you cannot drink alcohol for at least 6 months. After surgery, alcohol irritates the lining of your stomach pouch and/or your intestine and can cause ulcers.

Also, after surgery, your stomach pouch is not able to break down the alcohol and your blood absorbs it very fast. This means that you feel the effects quickly and can become intoxicated after a very small amount. Research has shown that a person who has had bariatric surgery absorbs 4 times as much alcohol from a drink. Research has also shown that the alcohol level is higher and that the higher level is maintained for a longer period of time in a person who has had bariatric surgery. This is not safe for many reasons.

Your doctor or dietitian will tell you when and if you can have alcohol again.

## Stop carbonated drinks – 2 months before surgery

Stopping carbonated drinks is important to do at least 2 months before surgery as it can be a challenge to stop.

You cannot have any carbonated drinks after surgery because carbonated drinks produce gas in the small stomach pouch and many people find this painful.

Carbonated drinks are also not nutritious and take up a lot of space in your small stomach.

#### Medications – 2 months before surgery

Before you have surgery, talk to your surgeon and family doctor about any medications, vitamins, herbal products and botanicals you take. Some of these may be stopped and others may be changed.

Stop taking anti-inflammatory medications such as Ibuprofen (Motrin, Advil) and Naproxen (Naprosyn, Aleve). These medications put you at high risk for developing stomach ulcers. If you take Aspirin for reasons other than pain and anti-inflammation, speak to your doctor first before discontinuing.

Right after surgery, you may not be able to take some medications in pill or capsule form while the body heals. Some pills may need to be split or crushed for 6 or longer or for life. Some capsules may need to be opened. You may also need to take some medications in liquid form.

You will need to arrange how to take your medications and vitamin and mineral supplements with your family doctor, surgeon and pharmacist before surgery so that you can take them safely after surgery.

A general guideline for taking pills is you may be able to swallow them whole if they are smaller than 1.5 centimetres or the size of this circle.

If you have a problem taking pills this size, you should split or crush them after talking with your pharmacist.

### Exercise and Activity – 2 months before surgery

It is important to be in good physical condition before surgery. Being in good shape will help you recover faster and prevent problems after surgery. Make sure that at least 2 months before surgery you begin or continue to do regular physical exercise. Talk to your doctor first before starting a new exercise program to make sure it is a good plan for you.

Walking is a great exercise. Walking helps you to:

- Improve blood flow
- Breathe better
- Build muscle
- Lose weight
- Manage stress, feel good, and get better sleep

Start walking regularly before surgery and slowly build up in time and number of days in a week you walk. The guideline is a total of 30 minutes, 5 days a week; however, you can break up the 30 minutes into smaller chunks. For example, 2-15 minute walks per day.

You will be moving and walking in the hospital the day you have surgery so it is best to get into shape now.

All physical activity is good. Move in a way that feels good to you

#### Remember:

- To maintain a healthy weight and to prevent weight gain, you need to develop and keep healthy eating habits.
- Physical activity must be part of your lifestyle plan.

#### Vitamins and Mineral Supplements – 2 months before surgery

Based on your bloodwork, medical history, and individual risk(s) identified during your assessments with our team, you may be prescribed vitamins and/or minerals to take prior to surgery. The purpose is to optimize your nutrition levels even before going into surgery. Some nutrition markers take much longer (6+ months) to correct than others.

## Nutrition and Diet – 2 months before surgery

You should begin making changes before surgery to prepare for your new lifestyle. Keeping a food journal will help you monitor your food and fluid intake. Your success will depend on your choices and the consistency of habits. **Weight loss surgery alone does not treat obesity**.

Here are some changes you can start working on now to prepare for changes after surgery (the longer you do this before surgery, the more likely you'll be successful after surgery):

- Keep a food journal or daily diary of what you eat, the amounts you eat and when you eat.
- Aim for eating 3 meals daily with 20 30g protein at each meal (70 100g protein a day).
- Eat a healthy snack between meals longer than 4 hours apart every day.
- Practice sipping on water each day- due to the size of your new stomach pouch after surgery, drinking large amounts at a time can cause discomfort and pain.
- Clean out cupboards, fridge and freezer of high calorie and trigger foods.
- Stop drinking liquid calories, such as juice, pop, alcohol, chocolate milk, iced tea etc.
- Cut back on restaurant meals, take-out foods, and fast foods.

#### As you get closer to surgery:

- Read the Nutrition and Diet section to prepare for After Surgery (starting on page 52).
- Prepare a grocery list so you will be ready for the nutrition and diet changes after surgery.
- Buy enough protein supplements (shakes/powders) recommended by the dietitian to last at least 4 weeks after surgery.
- Avoid overeating or having a last big supper of your favourite foods before surgery.
- Have smaller cups, bowls and plates ready for smaller portions after surgery.

## **Pre-Surgery Sample Day of Eating #1**

#### **Breakfast**

2-egg omelette

1 cup veggies of your choice

Top with ¼ cup low-fat cheese (under 20% M.F.)

2 tablespoons sugar-free ketchup (use based on preference)

2 slices multigrain toast

#### AM Snack

1 small container Greek/Skyr yogurt

1 medium fruit (like apple, tangerine, pear, peach, etc.)

#### Lunch

Zesty chicken wrap

Joseph's wrap, Flatout Flatbread, or La Tortilla Factory high-fibre tortilla

3oz chopped baked chicken (make use of leftovers!)

2 cups veggies of your choice (use some in wrap and the rest can be a side salad)

2 tablespoons low-calorie Italian dressing mixed with 2-3 tablespoons 0% plain. Greek Yogurt

#### PM Snack

1 cup chopped veggie sticks

3 Light Babybel cheeses

#### Dinner

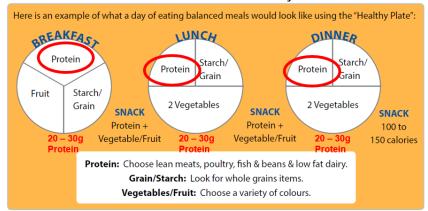
3oz Baked Salmon with low-calorie seasoning of your choice

2 cups roasted veggies of your choice

1 medium baked potato topped with Greek Yogurt in place of sour cream

Tip: use spray oil to lightly and evenly coat pan to minimize calories

Notice how the meals follow the "Healthy Plate" method of eating.



Snacks are recommended between meals longer than 4 hours apart. If your meals are shorter than 4 hours apart, then a snack is not needed.

Please note individual needs may vary. Your Dietitian will work with you to optimize your nutrition.

## **Pre-Surgery Sample Day of Eating #2 (Vegetarian)**

#### Breakfast

- 1 cup cooked steel-cut oatmeal
- 1 teaspoon cinnamon (optional)
- 1 scoop whey protein powder
- 1 cup chopped fruit (like berries, apples, pineapple, peaches, etc.)

Sweetener or low-calorie syrup as needed

#### AM Snack

10 whole almonds

#### Lunch

Grilled tempeh salad

100g grilled tempeh (marinated with low-calorie seasoning of your choice)

1 cup cooked quinoa

2 cups veggies of your choice

#### PM Snack

Low-fat string cheese (under 20% M.F.)

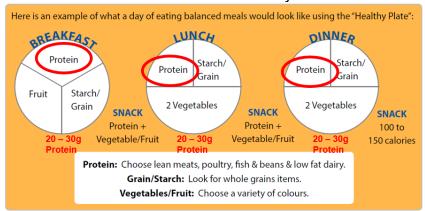
Multigrain crackers (up to 15g carbs)

#### **Dinner**

Vegetarian Chili

Sub in textured vegetable protein instead of ground meat

#### Notice how the meals follow the "Healthy Plate" method of eating.



Snacks are recommended between meals longer than 4 hours apart. If your meals are shorter than 4 hours apart, then a snack is not needed.

Please note individual needs may vary. Your Dietitian will work with you to optimize your nutrition.

## **Pre-Surgery Sample Day of Eating #3 (Minimal Prep)**

#### Breakfast

Protein Bar (up to 200 calories; 20g protein or more)

Multigrain crackers (adding up to 15g carbs)

1 medium fruit

#### Snack

1 container 0% Greek yogurt

#### Lunch

2 boiled eggs

2 cups sliced veggie sticks

Crackers (up to 30g carbs)

1 medium fruit

#### **Snack**

3 Light Babybel cheeses

#### <u>Dinner</u>

Chicken stir-fry

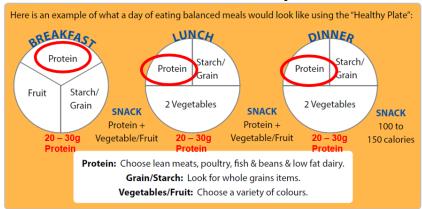
3oz cubed chicken breast

1 cup cooked quinoa

2 cups chopped mixed veggies of your choice

Season with garlic, ginger, green onions, and light soy sauce (or low-sodium seasoning of your choice)

#### Notice how the meals follow the "Healthy Plate" method of eating.



Snacks are recommended between meals longer than 4 hours apart. If your meals are shorter than 4 hours apart, then a snack is not needed.

Please note individual needs may vary. Your Dietitian will work with you to optimize your nutrition.

# **Pre-Surgery Liquid Meal Replacement Diet**

You will be required to take a liquid meal replacement called Medi Meal for at least 2 – 4 full weeks before surgery (your surgeon will prescribe you the proper amount).

Medi Meal (4 packages) provides 900 calories and has all of the nutrients that your body needs. It is low in carbohydrate and fat and high in protein, which will shrink your liver. Carbohydrates in Medi Meal Time are slowly absorbed which means If you are living with diabetes, you may need to change your medications and/or insulin.

If you are living with diabetes or high blood pressure, please call the Providence Healthca Centre of Excellence clinic BEFORE starting Medi Meal: 416-285-3666 x54767. Please ask to speak to the Bariatric Pharmacist.

#### Here are some guidelines to follow:

- It is very important to have all four packages every day for the prescribed amount of time before surgery or as recommended by your surgeon.
- Do not have less than four shakes per day. (This may result in losing muscle, which will interfere with healing after surgery.)
- Divide the four packages evenly over the day (every 4 hours) to avoid hunger. Avoid any additional foods. Extra calories can undo ketosis and result in rebound hunger.
- Mix 1 packet with at least 250-500mL (1-2 cups) cold water. You may add ice cubes if you like. Shake well in blender bottle, or blend in blender.
- After 3 to 4 days on Medi Meal, the ketones that your body produces from burning fat will help decrease your hunger. This mild state of ketosis is safe. You may notice an odour to your breath when you are in ketosis, this is normal.
- Do not take large doses of vitamin C while on Medi Meal. Too much vitamin C increases the risk of kidney stones. If you are taking a multivitamin that contains vitamin C, consider staying off the multivitamin until after surgery.
- To manage constipation and/or diarrhea: Drink plenty of fluids (2-3 litres per day) and try 1-2 Metamucil capsules or 1 tsp of Inulin fibre (sugar free) with each Medi Meal shake. (Avoid other brands of fibre laxatives as they may contain too many calories).

#### **General Guidelines for Patients with Diabetes taking Medi Meal:**

- Please refer to page 27 and 28 in guidebook.
- Please avoid starting Medi Meal on a Friday in case you need medical support to help with blood sugars and hyperglycemic oral medications or insulin adjustments. The best days to start Medi Meal are Tuesday or Wednesday.
- If you are experiencing a low blood sugar level (under 4 mmol/L), check your blood sugar immediately and treat with one of the following 15 grams of quick sugar (Examples):
  - 15 grams of glucose in the form of glucose tablets
  - 3 teaspoon or 1 tablespoon or 3 packets of sugar dissolved in water
  - 175 ml (3/4 cup) of juice
  - 6 Life Savers (1 = 2.5 grams of carbohydrate)
  - 1 tablespoon of honey

Source: The Canadian Diabetes Association 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. September 2008, Volume 32 Supplement 1

- Wait 10 to 15 minutes; then check your blood glucose again. If it is still low:
  - Treat again with one of the 15g of quick sugar above
  - And if your next Medi Meal is more than 30 minutes away, or you are going to be active, eat a snack, such as a half-sandwich or cheese and crackers (something with 15 grams of carbohydrate and a protein source.)

#### **Before Surgery:**

- Stop Medi Meal the night before your surgery.
- Do not have any milk, cream, lemon juice, orange juice, pineapple juice, or grapefruit juice.
- Continue drinking only clear fluids, which includes water, decaf tea/coffee with no cream/milk, broth, clear Popsicle, Jell-O, or Crystal Light. You may have as much as you like, but this is all that you can have.
- After midnight before surgery, follow the eating and drinking instructions you were given by the pre-op assessment team.
- NPO or "Nothing to eat/drink" means no chewing gum, candy, lozenges, or similar products.
- You may take medications the anesthesiologist advised with a sip of water.

#### **Making Medi Meal:**

- Add 8 to 16 oz (250 to 500 mL) of water to the shaker and pour 1 packet of the Medi Meal meal replacement on top. Shake vigorously or add to blender and enjoy. Add ice cubes if you prefer it cold.
- Each day, drink at least 8-12 cups (2-3 litres) of fluid, including the fluid you add to Medi Meal. Choose sugar-free, calorie-free beverages that are non-carbonated and caffeine- free.

#### Acceptable fluids:

- Water (you can add some fresh lemon or lime juice)
- Decaffeinated coffee or tea (no milk and no sugar)
- Nestea® Singles, Lipton® Iced Tea to Go, Crystal Light®, Great Value® – sugar free drink mix
- Chicken bouillon/ beef or vegetable broth
- Sugar-free Jell-O®
- Sugar-free Popsicles
- You can eat up to a total of 500mL (2 cups) a day of the following vegetables while taking Medi Meal. Vegetables can be raw or cooked. You can ONLY eat these vegetables:
  - Green peppers, broccoli, cauliflower, cabbage, lettuce, spinach, celery, zucchini, or cucumber.
- Do not eat any other foods or calorie-containing beverages on Medi Meal. You
  may use artificial sweeteners, sugar-free gums or sugar-free mints (up to 20 calories
  per day).
- Once Medi Meal has been mixed, you should drink it right away, as it will settle and form clumps if left to sit. If you do choose to save it for later, it must be refrigerated. It can be kept up to 24 hours in the refrigerator once it has been mixed with water.
- Do not heat Medi Meal or add hot liquids. Keep packages in a cool, dry place.

#### Reminder:

Medi Meal is only to be used BEFORE surgery. Do not used Medi Meal Time after surgery, as it provides higher calories and volume of product than your pouch can tolerate. Please refer to the "Choose a Protein Supplement" section for an appropriate post-op protein supplement.

# Medi Meal Recipe Ideas

#### To change the flavour:

 You may add calorie-free, sugar-free fluids such as Nestea® Singles, Lipton® Ice Tea to Go, Crystal Light®, or other sugar-free fluids. You may also add a few drops of flavouring extracts (sugar-free).

#### Recipe ideas:

Orange Creamsicle™ Shake	Mint Chocolate
10-12 oz water	8 oz water
2 cups crushed ice	1 chocolate Medi Meal®
1 vanilla Medi Meal®	1-2 drops of mint extract
1-2 drops of orange extract	Blend until smooth
Blend until smooth	
Chocolate & Raspberry Shake	Root Beer Float
10-12 oz water	12 oz water
2 cups crushed ice	1 vanilla Medi Meal®
1 chocolate Medi Meal®	1/8 tsp of root beer extract
1 package of raspberry sugar-free drink	Pinch of cloves
crystals	Blend together and put it into the freezer for
Blend until smooth	1.5-2 hours. Take it out of the freezer and
	blend it again until slushy.
Bananas Foster	Black Forest Chocolate Pudding
10-12 oz water	6 oz water
2 cups crushed ice	1 chocolate Medi Meal®
1 vanilla Medi Meal®	1 tsp of rum extract
1 tsp of rum extract	1 tbsp of sugar-free cherry Kool Aid powder
1 tsp of banana extract	1 packet of calorie-free sweetener
Blend until smooth	Blend until smooth

Recipes courtesy of UHN, Toronto Western Hospital Bariatric Surgery Program.

## 1 to 2 Weeks Before Surgery

### Pre-Admission Assessment Visit – 1 to 2 weeks before surgery

Depending on where you will have your surgery, you will be given instructions and appointments for pre-admission assessments that typically involves a nurse, pharmacist and anesthesiologist.

You will have blood taken for any tests your surgeon has ordered. You will also have a heart test done called an ECG. You will meet with the anesthesiologist to talk about having general anesthesia for this surgery. This means that you are asleep during surgery.

You will get a set of instructions to follow before surgery. If you are not sure of anything, contact your surgeon's office for advice.

#### **Stopping Some Medications and Other Products**

The anesthesiologist, nurse and pharmacist will tell you what medications and other products to stop before surgery. You will get a reminder list to take home.

If you take anticoagulant medications such as Heparin, Coumadin or Plavix, follow the guidelines from the surgeon's office/surgical site.

Make sure you have a list and tell the anesthesiologist, nurse and pharmacist about all of the vitamins, minerals, herbal products, botanicals or medications you are still taking during this visit. Some may cause your blood to be thin or cause other medical problems and need to be stopped before surgery.

Make sure you have stopped taking herbal products such as St. John's Wort, gingko biloba, garlic, ginseng and kava kava **2 weeks before surgery.** 

## 1 Day (24 hours) Before Surgery

#### If you have a CPAP or BiPAP machine:

Get ready to bring your machine and mask to the hospital the day of surgery.

Write down your prescription settings and the name of the company for the machine so your health care providers will be able to operate it.

The respiratory technician at the hospital may need to talk to your machine provider about your settings.

## What to bring to hospital:

Refer to the information provided to you by the surgical team. You should plan to stay in the hospital for 1 to 2 nights.

Bring your CPAP or BiPAP machine and mask if you use one.

## **After Midnight Before Surgery**

#### **Instructions:**

Stop Medi Meal.

After midnight, follow the eating and drinking instructions you were given in the Pre- Admission Assessment with the nurse, pharmacist, and anesthesiologist.

'Nothing to Eat or Drink' means no chewing gum, sucking candy, lozenges or any other products like this.

You can take any medications the anesthesiologist advised with a sip of water.

#### The Day of Surgery

Depending on where you will have your surgery, you will be given specific instructions on what to prepare and where to go on the day of surgery. For more information, please contact the surgical team at the hospital where your surgery will take place. If for any reason your surgery is cancelled, you will be called at home and given another date for surgery.

#### **The Operation**

#### **The Operating Room**

When it is time, you will be taken to the Operating Room. This room is bright and cool. You may walk or travel by wheelchair or stretcher. You will be helped onto the operating room table.

The team then goes through the steps of preparing for surgery to make sure they have the right patient and the right surgery before starting.

You are in the operating room for about 2 hours.

#### **Recovery and Transfer to Inpatient Unit**

#### Recovery

When your surgery is completed, you will be monitored closely by the nurses in a Recovery room and given pain control medication. You will stay here until you are fully awake and will then be transferred to an inpatient unit. There is a waiting room for your support person.

#### **Pain Control**

You may have some pain from your incisions. You will also have pain from the air that is put into your abdomen to help the surgeon do the surgery. This 'gas bubble' pain usually decreases within the first 2 days. Ask your nurse for pain control medication when you need it. The nurse will let you know how often you can have pain control medication.

Other ways to relieve pain are walking and any method of relaxation such as listening to music, deep breathing or imagery.

#### **Intravenous Therapy**

The IV will give you fluids and medication after surgery. It is taken out when you are able to drink well.

#### Nausea

Some people have nausea after a general anesthetic. It is very important to tell your nurse if you feel sick to your stomach. You will be given medication to prevent or help manage nausea and vomiting.

#### **Exercise and Activity**

Exercise and activity are very important to help you recover. Getting up and moving helps keep muscles strong and prevents:

- breathing problems
- blood clots
- constipation

Do deep breathing exercises and circulation exercises every hour you are awake.

Ask your nurse to help you the first time you get up. You will be encouraged to move around as much as you can. Make sure you are wearing non-slip shoes, non-slip slippers or non-slip socks. As you feel stronger, you will be able to take longer walks.

The nurses will help you get up and walk the same day of your surgery. The next day you should walk at least 4 times.

#### **Support Stockings**

You may need to wear intermittent pneumatic compression devices when in hospital. These devices use cuffs around the legs that fill with air and squeeze your legs. This increases blood flow through the veins of your legs and help prevent blood clots.

#### **Bathing and Showering**

You can shower 48 hours after surgery or as advised by your surgeon. Try to keep incisions dry when sponge bathing. Pat the incisions dry after bathing. Avoid using soap on your abdomen until incisions are well healed.

#### **Incision Care**

Your care team should assess your incisions (surgical cuts) and incision coverings while you are in hospital. You can also look at your incision coverings. It is normal to see dried blood under your wound coverings. Please tell your care team if your incision coverings become wet from blood or discharge.

#### **Nutrition and Diet**

Since diet is very, very important, there is a complete diet section in this book starting on page 52.

#### **Medications**

Your health care team will give you your medications in a form that you can take. Some may be split or crushed. Some may be put into unsweetened applesauce, water or other liquid to help you swallow.

#### **Making Plans to Go Home**

You will need to arrange for someone to drive you home.

#### At Home After Surgery

#### **Pain Control**

If you have pain, take pain control medication ordered by your doctor.

Pain should decrease over time. Call your doctor if your pain is not relieved by medication, does not go away over a few weeks, or you have a sudden increase in pain.

#### **Bathing and Incision Care**

When you shower, cover the incisions to keep them dry. You can shower 4 days after surgery or when your doctor advises.

You cannot take a bath or swim until your incisions are well healed. You can talk to your family doctor about this during a follow-up visit.

Keep the Steri-Strips on your incisions clean and dry for 7 to 10 days depending on your surgeon's instructions. If any Steri-Strips fall off, leave them off.

It is normal to have some swelling around the incisions. This takes a few weeks to go away. If you have severe swelling, bruising or redness that is spreading, contact your family doctor or the Providence Healthcare bariatric clinic as you may have bleeding or an infection.

You may have some numbness in the incision area. This is normal as some nerve endings were cut during surgery. Feeling may or may not return slowly over the next 2 to 3 months.

The incision scars may be red, dark pink or purple. These may or may not fade over the next year. This depends on your skin type.

#### Medications

You may need to split or crush some medications for 6 weeks or longer or for the rest of your life. You can mix the medication with a small amount of unsweetened applesauce, water or other liquid to help it go down. The general rule of thumb is, if it is smaller than 1.5 cm (e.g. the circle on page 23), then it is safe to swallow whole. Otherwise, it should be crushed/split/opened. If you have any questions or concerns, please speak with the pharmacist.

Your doctor or pharmacist will assess how to take your medication at each clinic visit.

Take 1 pill at a time. Wait before taking another medication to make sure it goes down. Drink fluid after taking a pill to help you swallow.

Your doctor and members of the health care team will tell you when you can start taking certain medications after surgery. Each person's plan of care for medications is different.

Talk to the doctor or pharmacist when you have questions or concerns.

#### Remember . . .

- You must take a multivitamin and mineral supplement every day for the rest of your life.
- There are more details in the nutrition section starting on page 95.

#### Book a follow-up with your Family Physician (primary care provider)

We encourage you to book a follow up after surgery with your family doctor or nurse practitioner 1-2 weeks after surgery.

Keep your family doctor or nurse practitioner informed and up to date.

Follow up with family doctor or nurse practitioner for a checkup, including blood pressure and to address ongoing treatment of pre-existing medical conditions and the management of routine non-urgent issues (constipation, hemorrhoids, etc...)

#### Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

You should not take this type of medication after surgery. There are too many types and brand names to list here but some names include ibuprofen (examples Advil, Motrin), acetylsalicylic acid (example acetylsalicylic acid) and COX-2 inhibitors (example Celebrex) and Naproxen. These medications put you at high risk for developing stomach ulcers.

If any health care provider or specialist you see wants you to take NSAIDs after surgery, you must contact the Unity Health BCOE first.

#### **Ulcer Prevention Medication**

You may be required to take a medication to help prevent stomach ulcers for at least 3 months. Your surgeon will prescribe this for you. The medication reduces the amount of acid your stomach produces, thus reducing the risk of stomach ulcers.

Be sure to follow the directions as written on the prescription. Please note that these medications are taken  $\frac{1}{2}$  hour before food. (e.g. if the prescription is to take it twice daily, it should be taken as  $\frac{1}{2}$  hour before breakfast and  $\frac{1}{2}$  hour before dinner.

#### **Blood Pressure Medication**

Blood pressure is written as 2 numbers. There is a

top number and a bottom number:

systolic = when your heart contracts and pumps blood forward

diastolic = when your heart relaxes In this

example the blood pressure is 120 over 80.

If you take medications to manage your blood pressure after surgery, you should monitor your blood pressure at least 2 times a week.

Call the health care provider who looks after your blood pressure such as your family doctor, nurse practitioner or cardiologist if you notice:

- the top number (systolic) is less than 100
- the top number (systolic) is more than 155

Do not stop any medication or change doses on your own.

#### **Medications for Mental Health and/or Seizures**

If you take medications to manage mental health and/or seizures, you must closely monitor your symptoms after surgery. The surgery can change the absorption of some medications. Call your family doctor or health care provider if you notice changes in your symptoms of mental health and/or seizures.

Do not stop any medication or change doses on your own.

#### **Prevention of Blood Clot Medication**

After surgery you have a higher risk of getting a blood clot. A blood clot can be very dangerous. A blood clot can block a blood vessel so blood cannot flow through your body:

- A blood clot in your brain can cause a stroke.
- A blood clot in your heart can cause a heart attack.
- A blood clot in a lung is called a pulmonary embolism. Symptoms include sharp chest pain, trouble breathing and shortness of breath.
- A blood clot in your leg is called a deep vein thrombosis. Symptoms include pain, redness, tenderness and swelling around the site of the clot.

It is important to get up and move when you are able to after surgery to decrease risk of a blood clot.

Your surgeon may give you a blood thinner depending on your individual risk factors. If you have any questions about your individual risk level, please speak with your surgeon.

#### **Exercise and Activity**

Gradually resume your normal activities. Moving and walking helps you recover, prevents problems after surgery and promotes healthy living.

- ☑ Do not lift or carry anything over 4 kilograms or 10 pounds. This includes things like a grocery bag, suitcase, laundry basket, vacuum cleaner, pet or child until you check with your doctor. Most people should follow this guideline for 6 to 8 weeks
- Do not do any strenuous exercise for 6 to 8 weeks until your doctor says you can.

Start with short walks a few times a day. You can walk inside or outside. You will feel tired so rest and take breaks but keep on walking. As you recover you will be able to walk further each time, and more often. You may want to buy a pedometer (e.g. Fitbit) to count your steps and measure your progress.

Talk to your doctor if you have problems with your joints and walking is hard. There is an exercise for you! Sometimes water exercises are better. Talk to your doctor about starting any new exercises.

By 3 months you should be following an exercise plan that suits you and your lifestyle. There are many ways to exercise including going to a fitness centre, doing aquafit, hiking and biking. You can talk to members of your health care team in the Providence Healthcare Bariatric Clinic about your exercise and lifestyle goals.

#### **Return to Work or School**

The usual time off work is 4 to 6 weeks. When you return to work depends on what you do and how you feel. Talk to your doctor about when you can go back to work or school at your follow-up visits.

#### **Sexual Activity and Pregnancy**

You can resume sexual activity when you feel able. It is important not to get pregnant until your weight is stable and you are following a healthy lifestyle. This is usually around 15 to 18 months after surgery.

Rapid weight loss after bariatric surgery can greatly increase your fertility which means you can get pregnant easily. You need to talk to your family doctor and use non-oral hormonal birth control.

If you would like to have a baby, it is very important to plan for a pregnancy. After surgery your nutritional levels may not be optimal. Vitamin and mineral levels need to be checked and followed to ensure proper growth of the baby. Pregnancy should be followed by an obstetrician who deals with high risk pregnancies.

If you become pregnant at any time or think you may be pregnant, contact the Providence Healthcare Bariatric Clinic. You will need to be referred to an obstetrician for an assessment of high risk pregnancy.

#### **Religious Fasting**

We advise patients to wait **12-18 months** after surgery before fasting to prevent nutrition and medical complications. The potential complications are dehydration, vitamin/mineral deficiencies, hypoglycemia (low blood sugars), dumping syndrome, disordered eating patterns.

#### Follow-up

You will have a routine follow-up appointments at the Providence Healthcare Bariatric Clinic. Most appointment will be virtual and will occur at

- 1 week
- And 3, 6, 12 months

Blood tests are done at 3, 6 and 12 months after surgery.

## **Medical Complications After Bariatric Surgery**

Bariatric surgery, while effective for weight loss and health, has risks. Understanding these is vital for patients.

Compliantian	Decemination	Cimpo 8 Computants
Complication	Description	Signs & Symptoms
Nutritional		
Dehydration	This can happen because you're drinking less fluid, vomiting, or sweating a lot.  It can cause problems like imbalance in your body's electrolytes, feeling dizzy, and in severe cases, issues with how your organs work.	Dry mouth, eyes, skin, lips Dark urine (dark yellow, orange, amber) Not peeing enough Dizziness Weakness Confusion Rapid heartbeat Poor skin turgor (bounce back of skin)
Nutritional Deficiency	Changes in your digestive system after surgery can make it harder for your body to absorb important nutrients like vitamins (such as B12 and D) and minerals (like iron and calcium).  It's important to have regular check-ups and take supplements to avoid deficiencies.	Fatigue Weakness Dizziness Pale skin Brittle hair and nails Soreness/swelling of the tongue Mouth ulcers Brain fog
Weight Regain	Can happen due to changes in lifestyle, hormones, or how the surgery affects the body.  Regular check-ups and sticking to diet and exercise advice are crucial for keeping the weight off in the long term.	Gradual increase in weight Return of symptoms associated with obesity-related conditions (e.g., increased blood pressure, elevated blood sugar levels, worsening joint pain).

Mechanical: the body		
Bleeding	Minor bleeding can often get better on its own or with simple treatments.  However, if bleeding is severe, it may need blood transfusions or another operation to stop it.	<ul> <li>Increased heart rate,</li> <li>low blood pressure,</li> <li>swelling or hardness around the surgical site,</li> <li>bruising,</li> <li>bleeding from the wound.</li> </ul>
Ulcer	Ulcers can form in the stomach or small intestine, leading to pain, bleeding, or perforations.  Treatment involves medications to lower stomach acid and antibiotics if there's an infection.	<ul> <li>Abdominal pain (burning or gnawing)</li> <li>Bloating</li> <li>Nausea</li> <li>Vomiting</li> <li>Loss of appetite</li> <li>Weight loss</li> <li>Bloody or dark stools</li> </ul>
Leaks	A leak can happen if there's a hole or separation in the connections between parts of the digestive system, like the stomach or intestine.  If not quickly found and treated with drainage, antibiotics, and sometimes surgery, it can lead to peritonitis (inflammation in the belly) or sepsis.	<ul> <li>Fever</li> <li>Abdominal pain</li> <li>Increased heart rate</li> <li>Difficulty breathing</li> <li>Decreased blood pressure</li> <li>Drainage from the wound that may be foul-smelling</li> </ul>
Bowel Obstruction	Changes in the anatomy after surgery, such as internal hernias or strictures (narrowing of the intestines), can lead to bowel obstructions.  Treatment may require surgery to relieve the obstruction.	<ul> <li>Severe abdominal pain or cramping</li> <li>Bloating</li> <li>Vomiting (often projectile)</li> <li>Constipation or inability to pass gas</li> <li>Abdominal distension</li> </ul>

#### A stricture is a narrowing in Difficulty swallowing the gastrointestinal tract, Feeling of food getting **Strictures** commonly at the site of stuck after eating surgical connections. Nausea Vomiting Treatment involves endoscopic dilation or Regurgitation of food surgical correction to widen the narrowed area. An abnormal connection Pain can form between different Fever **Fistula** parts of the gastrointestinal Drainage of fluid or pus tract or between the from the wound or near the digestive tract and other surgical site organs or the skin surface. Redness or swelling around the wound. Symptoms vary depending on the location and may include pain, fever, and discharge. Treatment involves surgical repair. Incisional hernias can Visible bulge under the Hernia develop at the site of skin surgical incisions due to Discomfort or pain, weakened abdominal especially when lifting or muscles. straining Feeling of heaviness in the Surgical repair may be abdomen necessary to prevent complications. Rapid weight loss can lead Sudden and intensifying to the formation of pain in the upper right **Gallstones** gallstones. portion of the abdomen

Some patients may require

surgery to remove the

(cholecystectomy) if

symptoms are severe or

gallbladder

recurrent.

Pain between the shoulder

Jaundice (yellowing of the

blades

Nausea,

Vomiting

skin or eyes).

Systemic		
Blood Clots	Patients undergoing bariatric surgery are at increased risk of developing blood clots, which can travel to the lungs (pulmonary embolism, PE) or form in the deep veins of the legs (deep vein thrombosis, DVT).  Prevention measures include early mobilization, compression stockings, and anticoagulant medications.	<ul> <li>Pulmonary embolism (PE):</li> <li>Sudden shortness of breath</li> <li>Chest pain (especially with deep breathing or coughing)</li> <li>Fast breathing</li> <li>Fast heart rate</li> <li>Coughing up blood</li> <li>Deep vein thrombosis (DVT):</li> <li>Swelling</li> <li>Pain</li> <li>Warmth or redness in the affected limb (usually the calf), sometimes with no symptoms</li> </ul>
Wound Infection	Incisions can become infected due to bacteria entering the incision site.  Treatment involves antibiotics and wound care to prevent deeper infections.	<ul> <li>Redness</li> <li>Swelling</li> <li>Warmth</li> <li>Tenderness around the wound</li> <li>Pus</li> <li>Discharge from the wound,</li> </ul>
		<ul><li>Fever</li><li>Chills</li></ul>

If you experience any of these symptoms, please seek prompt medical attention. Early recognition and treatment can help prevent serious consequences and improve your outcomes.

#### Contact your family doctor or health care provider if you notice:

- any incision is red, swollen, painful or, bleeding
- any incision has yellow, green or smelly discharge
- you have a fever a temperature 38.3° or above
- vomiting that lasts more than 3 hours
- dizziness that does not go away

#### Go to the Emergency Department if you have:

- leg pain or swelling
- shortness of breath
- chest or shoulder pain
- Severe abdominal pain

Call 911 or your local emergency number. Do not drive yourself.

# Getting Support from Family and Friends

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(Ask them to read this section)	

#### **Good Support Helps**

When you have decided to lose weight it is important to have the support of family and friends to help you achieve your goals. There has been a lot of research on the value of having positive relationships and supports when losing weight and keeping it off. Talk to your family and friends about how they can help you.

We all know that it is hard to change behaviour and sustain change over time. Researchers agree that losing weight is a major challenge. In order to lose weight, a person often needs to combine several strategies. Having weight loss surgery is only the first step. You must also make permanent positive changes to your diet and eating habits as well as exercise to lose weight and maintain weight loss. Most people need and want support to make these changes.

After surgery, there may be an emotional adjustment to your new life. You will need to deal with changes in your relationship with food and changes in your new body image. Sometimes you may expect more or different changes. Sometimes the changes can be overwhelming even though it is what you wanted.

You may find a change in your lifestyle such as exercising more and going out less to eat interferes with your previous relationships. You may feel your role and identity with your family and friends has changed, and this can sometimes lead to anxiety and depression.

You may want to join a support group or on-line forum. Support groups provide a chance to have peer to peer support from others who have also had this type of surgery. You will be able to talk to others about your challenges and experiences, share recipes and resources and you may even find an exercise partner. For more information about support groups offered in our clinic, please reach out to Providence Healthcare Bariatric clinic Social Workers

#### Remember:

You may need to combine several strategies of support to help you lose weight, maintain your weight loss and adjust to the changes in your life.

#### **Ways Family and Friends Can Help**

Here are some helpful hints for family and friends with examples of how to help you. You can copy this section and give it to your family members and friends to read.

- Learn about obesity, weight loss and bariatric surgery. As you learn about this
  subject you will discover that no one plans to become overweight. Obesity is a
  result of a combination of physical, chemical, psychological and emotional issues.
  Losing weight is a major challenge and patients are more likely to be successful
  after bariatric surgery if they have a solid support system.
- Talk about what type of support your friend or family member wants and how much you can offer.
- Offer support in positive ways. This can include listening, offering encouragement, or trying out a new activity with your loved one. Instead of meeting for dinner, suggest participating in an exercise class, going for a hike, or trying out a fun class together.
- Prepare healthy choices when you invite your family member or friend for a meal. Let them plate their own food.
- Offer fresh fruit instead of baked goods for dessert. Call in advance to discuss menu preferences so your family members or friend can relax and enjoy each visit.
- By making healthier life choices alongside your family member or friend it can help them feel supported in their journey. There are many benefits of a healthy lifestyle regardless of body weight.
- Whenever possible, avoid eating tempting foods in front of your family member or friend. Wait until you are not together. For example, treat yourself at work or school before you come home.
- Be patient and avoid becoming a "food cop". If you find yourself becoming frustrated watching your family member or friend make unhealthy choices, take a breath, walk away, read a book, or go out for a while.
- Develop new traditions for special occasions and holidays if you traditionally celebrated with high calorie foods. Avoid saying things like "It's a birthday party. Everyone has to have some cake" or "I made this especially for you". Try out healthier recipes, change the way you think about celebrating, and respect your family member's or friend's plans.
- Avoid being the only support person. This can be hard to take on and may cause stress to your relationship. Encourage your family member or friend to find other supports as well, including friends, co-workers, counsellors, or support groups.
- Continue to communicate. Be clear, open and honest about how you feel. Every so often, take some time to evaluate how things are going. Talk to your family member or friend and ask how you are doing supporting him or her in these weight loss and healthy lifestyle plans. Relationships change over time, and yours will too! Celebrate successes together.

#### **Understanding Change**

#### **Stages of Change**

Having bariatric surgery is an important decision. Along with this main decision are lots of other decisions and changes that you need to think about and perhaps make. Knowing about change theory is a good way to help you get ready for this time in your life.

A researcher called Prochaska and his colleagues have described a model for change called the Stages of Change. There are 6 Stages. You may be in one stage for one behaviour such as quitting smoking and another stage for a different behaviour such as starting an exercise program.

For each behaviour you want to change, look at the model and make a plan. You can do some work on this quietly by yourself and then talk to any of your support people or a member of your health care team when needed.

Stage of Change	Am I in this Stage?	Ways to Move On
• I am not ready and I am resisting change	<ul> <li>Avoiding the thing that needs to change</li> <li>Being poorly informed</li> <li>Not taking responsibility for this change</li> <li>Using defense mechanisms such as:</li> <li>Denial – I do not do this so</li> <li>Rationalization – I do this because</li> <li>Projection – so and so does this not me</li> <li>Blaming others (displacement) – I do this because I was raised this way</li> </ul>	<ul> <li>Think about the subject</li> <li>Become informed</li> <li>Take responsibility</li> <li>Become aware of your defenses</li> <li>Concentrate on making a change</li> <li>Think about how to change your defenses</li> <li>Begin positive self-talk</li> <li>Think about expressing your feelings through sport or exercise and do not take them out on other people</li> </ul>
Stage 2. Contemplation  I am getting ready and change is in my horizon  • I am getting ready and change is in my horizon	<ul> <li>Thinking about making the change seriously</li> <li>Weighing the pros and cons</li> <li>May procrastinate or delay</li> <li>May insist on finding the perfect solution first</li> </ul>	<ul> <li>Try to emotionally attach such as watch programs that deal with this or talk to others who have done it</li> <li>Imagine your change and bad effects that not changing would have on you &amp; others in your life</li> <li>Make a decision using a decision making process such as a clear and honest list of pros and cons</li> </ul>

Stage of Change	Am I in this Stage?	Ways to Move On
Stage 3. Preparation  I am ready	<ul><li>□ Made a decision</li><li>□ Decided on the steps to take to achieve this</li></ul>	<ul> <li>Commit to the change</li> <li>Make it a priority</li> <li>Take small steps to avoid being anxious</li> <li>Set a time frame</li> <li>Tell people about it</li> <li>Make a clear action plan</li> <li>Write your action plan down with timelines</li> </ul>
Time for me to get going on this change and do it	<ul> <li>□ Following the steps in the action plan</li> <li>□ Evaluating the plan and making changes if needed</li> </ul>	<ul> <li>Try healthy ways to cope with making this change such as taking a walk when feeling like smoking</li> <li>Control the environment such as getting rid of junk food in the house, throwing matches or lighters away, putting running shoes by the door to see them, do not walk by take-out places etc.</li> <li>Start a food journal</li> <li>Make a to do list and check off each day when done</li> <li>Reward yourself using healthy rewards</li> <li>Get others involved such as</li> </ul>
Stage 5. Maintenance  • Keeping the change up and staying there or moving forward more	☐ Keeping up the change for several months	<ul> <li>Stay alert to social pressures, negative self-talk and special situations</li> <li>Review your pros and cons list regularly</li> <li>Make a new pros and cons list</li> <li>Avoid people and places that sabotage your success</li> <li>Be clear about what you are doing and why to others</li> <li>Make a crisis card to read to help you deal with times when you may be tempted</li> </ul>

Unity Health Bariatric Centre of Excellence (BCoE) – Bariatric Surgery Program

Stage of Change	Am I in this Stage?	Ways to Move On
Stage 6. Termination  I did it – I made the change	☐ New self-image and feel great about making this change	Congratulate yourself
I did not succeed but I learned from this	□ Relapse – did not succeed this time	<ul> <li>See this as 1 step back to take 2 steps forward</li> <li>Many people take more than one try to make a change</li> <li>Budget more time and energy to making the change</li> <li>Be prepared for problems that arise next time</li> <li>Start with a smaller change next time</li> <li>Get some help and try again</li> </ul>

# **Nutrition and Diet After Surgery**

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#### **Diet Stages – Overview**

#### After surgery, the diet stages are:

Diet Stage	Start Date	See Page
In Hospital – Right After Surgery	Surgery day and perhaps day after	Page 54
In Hospital – Clear Fluids and Protein Supplements	1 – 2 days after surgery	Page 54
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Week 7 onwards – Diet for Life		Page 73

#### **Generally:**

- Over a 6 week period, you will progress slowly from clear fluids to a soft diet.
- It is normal to take anywhere between 2 4 weeks between diet stage transitions. If you
  experience complications/intolerances, you may need to follow a certain diet stage longer
  than 2 weeks.
- Make sure you take time transitioning diet stages. Try only one new food at a time in a small quantity to test tolerance.
- If you experience intolerance to a certain food, wait 1 − 2 weeks before trying it again.
   Treat your new stomach pouch like a baby and take your time.
- During the first 4 weeks you will need to drink protein supplements to get your recommended amount of daily protein.
- At first your stomach will hold about 60 to 120 ml (1/4 to ½ cup).
- By about 8 weeks, you will be able to eat about 250 ml (1 cup) of solid food for each meal.

#### In Hospital - Right after Surgery

- Right after surgery you may or may not be able to drink clear fluids. This depends on your surgeon.
- The day after surgery you will start or continue to be on clear fluids depending on your surgeon's plan.
- For a short time, you will also continue to get fluids through the IV. When you are drinking well, the IV will be removed.

#### In Hospital - Clear Fluids and Protein Supplements

#### **Tips and Suggestions**

- You will start this stage in hospital after surgery.
- Clear fluids help decrease irritation and stress to the surgical area, prevent vomiting, and allow time to heal.
- You will begin by sipping throughout the day. Sip about 30 ml (2 tablespoons) each hour.
   You will progress slowly up to a maximum of 120 to 180 ml (½ to ¾ cup) an hour depending on your doctor's order.
- Record your fluid intake as advised.
- If you are tolerating clear fluids, your surgeon will advise when you will begin getting
  protein supplements on each of your meal trays.
- It is very important to drink a protein supplement provided by your surgical hospital so you start to receive the nutrition you need to stay healthy. You will need to continue to take protein supplements at home as well.

#### **Clear Fluids Diet Guide**

Food Group	Foods Allowed	Foods Not Allowed
Milk and Alternatives	None	All
Meat, Fish, Poultry, and Alternatives	None	All
Fruit and Vegetables	No added sugar fruit juice (120 ml or 1/2 cup daily) diluted with 2 – 3 parts water	All others
Soups	Beef, chicken, or vegetable broth	All others
Grain Products and Starches	None	All
Beverages	Water No added sugar fruit juice diluted with 2 – 3 parts water	Carbonated drinks Caffeinated drinks Alcohol
Desserts, Sweets and Others	Sugar-free jello Sugar- free popsicles Artificial sweeteners	All other food and drinks not listed

# Clear Fluids Diet + Protein Supplements Sample Menu

#### **During the Morning**

- Protein supplement → Drink this first!
- No sugar added fruit juice 120 ml (½ cup) diluted with 250 ml (1 cup) water
- Decaffeinated coffee or tea 120 ml (½ cup)

#### **During the Afternoon**

- Protein supplement → Drink this first!
- No sugar added fruit juice 120 ml (½ cup) diluted with 250ml (1 cup) water
- Beef broth 120 ml (½ cup)
- Sugar-free Jell-o 120 ml (½ cup)
- Crystal Light 120 ml (½ cup)

#### **During the Evening**

- Protein supplement → Drink this first!
- No sugar added fruit juice 120 ml (½ cup) diluted with 250ml (1 cup) water
- Chicken broth 120 ml (½ cup)
- Sugar-free popsicle 60 ml (1/4 cup)
- Decaffeinated coffee or tea 120 ml (½ cup)
- Water 240 ml (1 cup)

# Full Fluids Weeks 1 and 2

#### **Tips and Suggestions**

- You will start full fluids when you get home from the hospital.
- The full fluids diet is based mainly on milk products. You can also continue to drink clear fluids.
- Choose full fluids that are high in protein and low in sugar.
- Start by sipping about 120 to 180 ml (½ to ¾ cup) each hour. Slowly increase the amount you drink until you can drink about 180 to 240 ml (¾ to 1 cup) at each meal.
- Your goal is to drink 2 litres (8 cups) of fluid each day including your protein drinks. This
  may be hard at first, but it should get easier with time and practice.
- Your goal is to get a minimum of 70 100g grams of protein each day. You need to drink protein supplements to reach this goal.
- Track your fluid and protein intake by writing it down on the pages
  at the back of this book. Make more copies of these pages before you run out. If you
  prefer you can use a notebook to track. Another way to track is to use a website or
  'app' such as My Fitness Pal or Baritastic or RxFood.
- Talk to your dietitian if you are not able to meet your goals.

### Full Fluids Diet Guide Weeks 1 and 2

Food Group	Foods Allowed	Foods Not Allowed
Milk and Alternatives	Milk (skim, 1%) Soy milk – plain or unsweetened (less than 12 grams of sugar each serving) Yogurt or Greek yogurt (smooth, 1% or less milk fat, less than 12 grams of sugar each serving)	Cream Chocolate milk Soy milk with 12 grams or more sugar each serving Yogurt with pieces of fruit, nuts or seeds All others
Protein Supplements  You need 2 to 4 protein supplements a day for the first 2 weeks depending on how much protein your supplement contains	Pre-mixed Protein Supplements with 20 to 30 grams of protein in each serving (e.g., Premier Protein, Myoplex Lite)  Protein Powder with 20 to 30 grams of protein in each serving (e.g., whey isolate or soy isolate) mixed with milk or water	Protein supplements with more than 6 grams of sugar each serving Protein bars
Meat, Fish, Poultry, and Alternatives	None	All
Fruit and Vegetables	Thinned and pureed vegetable soups (one consistency, no seeds or skins) ie. tomato, squash etc.	All others
Soups	Cream soup (strained) Beef, chicken, or vegetable broth	All others
Grain Products and Starches	Cooked cereals such as oatmeal or cream of wheat (less than 10 grams of sugar each serving)	All others

# Full Fluids Diet Guide Weeks 1 and 2 (continued)

Food Group	Foods Allowed	Foods Not Allowed
Beverages	Water	Carbonated drinks
	Low-calorie drinks (e.g.,	Caffeinated drinks
	Crystal Light, sugar-free Kool- Aid, Gatorade Zero)	Alcohol
	riid, Gatorado Zero)	Regular sports drinks
		Energy drinks
		Fruit juice
Fats and Oils	None	All
Desserts, Sweets and	Sugar-free Jell-o	All other food and drinks not listed
Others	Sugar-free	
	Popsicles	
	Pudding with no sugar added or artificially sweetened	

### Full Fluids Diet Sample Menu Weeks 1 and 2

These are examples of possible menus. You may change the type of fluids to whatever you like from the Full Fluids list but remember you must have 3 to 4 protein drinks a day (depending on how much protein is in each drink) and a total of 2 litres (8 cups) of fluid.

#### Note:

 This sample menu contains 2 protein drinks as the Premier Protein brand is high in protein. If you are using another protein drink, you may have to add another drink or 2 to this menu depending on the amount of protein each drink contains to reach the target of 70g protein per day

#### **During the Morning**

- 325 ml of Premier Protein drink
- Skim or 1% Milk 120 ml (½ cup)
- Water 240 ml (1 cup)

#### **During the Afternoon**

- 325 ml of Premier Protein drink
- No sugar added/artificially sweetened pudding 120 ml (½ cup)
- Skim or 1% Milk 120 ml (½ cup)
- Water 120 ml (½ cup)

### **During the Evening**

- Strained, cream soup 120 ml (½ cup)
- 0% Greek/Skyr Yogurt 120 ml (½ cup)
- Water 120 ml (½ cup)

#### **Full Fluids Recipes**

#### Vanilla-Raspberry Heaven (or flavour you like)

- 1 scoop vanilla protein powder or 1 scoop of flavoured protein powder that you like
- 240 ml (I cup) skim, 1% milk or sugar-free soy milk
- ½ single package Crystal Light raspberry flavour OR 5 ml sugar free raspberry extract or any flavour that you like

Mix in shaker or blender with ice

#### **Protein Drink**

- 1 scoop flavoured protein powder that you like
- 240 ml (1 cup) skim, 1% milk or sugar-free soy milk
- 1 to 2 ice cubes
- 2 to 3 drops flavoured extract that you like Blend

#### **Protein Smoothie with a Boost**

- 1 to 2 scoops vanilla, chocolate, or unflavoured protein powder containing a total of 20 to 40g protein
- 125 ml (½ cup) skim, 1% milk or sugar-free soy milk
- 1 (100 grams) container of yogurt with less than 12 grams of sugar and less than 12 grams of fat **or** 15 to 30 ml (1 to 2 tablespoons) of Greek yogurt for added protein.

Mix ingredients in blender

#### **High Protein Chocolate Peanut Butter Smoothie**

- 1 to 2 scoops chocolate protein powder containing 20 to 40 grams protein
- 240 ml (1 cup) skim, 1% milk or sugar-free soy milk
- 1 tablespoon peanut butter powder, such as PB2 powder

Mix in blender

#### **High Protein Peanut Butter Banana Smoothie**

- 1 to 2 scoops banana flavoured protein powder containing 20 to 40 grams protein
- 240 ml (1 cup) skim, 1% milk or sugar-free soy milk
- 1 tablespoon peanut butter powder, such as PB2 powder

Mix in blender

#### Puréed Foods Weeks 3 and 4

#### **Tips and Suggestions:**

- Puréed/Blended Foods are foods blended to a smooth consistency.
- Foods should be low in fat and sugar.
- Eat protein foods first, followed by vegetables and fruit, then grains.
- Avoid spicy foods as well as very hot/cold foods, as these may cause discomfort.
- Try only one new food at each meal to test tolerance.
- Goal is to achieve 70 100g protein each day (20 30g protein at each meal).
- You may continue to use protein shakes/powders to meet protein targets.
- Do not puree or eat pasta, bread, noodles, rice, or muffins.
- Do not have anything with pieces of nuts, seeds, tough skins, or dried fruits.
- At each meal, you may be able to eat about 125 175ml  $(1/2 \frac{3}{4})$  cup).
- Slowly eat 2 4 tablespoons every 15 minutes. Each meal will take about 60 90 minutes to finish.
- Take your time to eat slowly and focus on eating.
- If you feel pain or discomfort when you eat, stop eating and take a break. Try again later.

#### How do I purée foods?

To purée food, you need a food processor, blender, or a hand blender. The final consistency of the food should be smooth and thick enough to scoop with a fork or spoon. There should not be any chunks, pieces, or skins.

#### Meat & Fish:

- 1. Boil, roast, or bake until the meat separates easily from the bones or the fish flakes easily with a fork.
- Remove bones and skin, trim off the fat.
- 3. Cut meat or flake fish into small pieces.
- 4. Blend. You may need to use some cooking water or broth to get the right texture.

#### **Meat Alternatives:**

- 1. Cook legumes such as beans, lentils and chickpeas according to package directions.
- 2. Blend with a little water or broth.

#### Vegetables & Fruits:

- 1. Wash, peel, pit and/or seed.
- 2. Cut into smaller pieces.
- 3. Steam or boil until soft.
- 4. Drain and save the cooking water.
- 5. Blend. You may need to use some cooking water to get the right texture. Do not use juice.

### Puréed Foods Weeks 3 and 4 (continued)

Food Group	Foods Allowed	Foods to avoid
Meat & Alternatives	Puréed meat, chicken/turkey	High-fat meats (sausage,
	Puréed extra lean ground	hot dogs, ribs, chicken
	beef/pork	wings, fried chicken,
	Puréed fish	hamburgers)
	Puréed firm/extra-firm tofu	Fried eggs, hard boiled
	Puréed textured vegetable	eggs
	protein (TVP)	Oil-packed canned fish
	Puréed scrambled/soft-	
	poached eggs	
	Puréed legumes (e.g.,	
	hummus)	
Milk & Alternatives	Same as Full Fluids	High-fat cheeses
(High Protein)		(>20%M.F.)
Vegetables and	Puréed vegetables (e.g.	Sweetened fruit sauces
Fruit	cauliflower, broccoli, carrots)	Juice
	Puréed fruits without skin	
	and seeds (e.g. apple, pears	
	peach, nectarine)	
Grain products and	Soda crackers (saltines)	Crackers with nuts/seeds
Starches	Melba toast	Buttery mashed potatoes
	Cornmeal, cream of wheat	Rice
	Mashed potatoes, yams,	Bread
	sweet potatoes	Pasta

# Puree Foods Weeks 3 and 4 (continued)

#### Puréed/Blended Foods Menu Sample

#### TIPS:

- Eat 3 small meals and 3 small snacks to keep you nourished.
- Focus on the techniques of eating to prevent vomiting or discomfort.
- Focus on high protein foods to help heal. At each meal, eat the protein-rich food first, followed by vegetables or fruit, and then grain products.
- Add some water or low sodium broth to foods before reheating food on the stove or in a microwave.
- Remember to sip on water throughout the day; aim for 2L a day.

Breakfast	60 ml (1/4 cup) hot cereal made with low fat milk (add 15 ml (1 tbsp) skim milk powder, sprinkle of unflavoured protein powder) or with one poached egg 60 ml (1/4 cup) yogurt 30 to 60 ml (2 to 4 tbsp) puréed fruit or unsweetened fruit sauce
Morning Snack	125 ml (1/2 cup) protein drink
	30 ml (2 tbsp) puréed fruit
Lunch	30 to 60 ml (2 to 4 tbsp) low fat puréed soup (add 15 ml (1 tbsp) skim milk powder or sprinkle some unflavoured protein powder)
	1 to 2 crackers
	85 ml (1/3 cup) vegetable or tomato juice (optional)
	125 ml (1/2 cup) protein drink
Afternoon Snack	30 to 60 ml (2 to 4 tbsp) yogurt
	125 ml (1/2 cup) protein drink
Dinner	30 to 60 ml (2 to 4 tbsp) puréed meat or puréed fish
	30 ml (2 tbsp) mashed potato
	30 ml (2 tbsp) puréed vegetables
Evening Snack	125 ml (1/2 cup) protein drink

Sample menu courtesy of Humber River Hospital

#### Soft Foods Weeks 5 and 6

#### **Tips and Suggestions**

- This stage is designed to last a minimum of 2 weeks. For some people, this stage may take longer than 2 weeks because everybody heals differently and has different tolerances.
- The focus of this stage is on soft protein foods that are easy to chew and digest. This
  should cause you the least amount of discomfort. You can still eat all foods from the
  list for the previous weeks.
- Soft foods should be soft enough to be easily mashed with a fork.

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- Your goal is to get a minimum of 70 grams of protein each day.
- Always eat your protein foods first so that you are more likely to meet your daily protein requirements. Refer to pages 85 to 87 for help with meeting your daily protein intake.
- You need to continue to eat slowly and to chew very well in order to minimize discomfort.
  Your meal should take 30 to 40 minutes to eat. Avoid distractions such as watching
  television or using the computer while you eat so that you are less likely to overeat or eat
  too quickly.
- You need to pay close attention to your portion sizes. Stop eating as soon as you feel full. You should be able to eat about 120 to 240 ml (½ to 1 cup) of food at one time.
- You should plan to eat 3 meals each day. You will also need to add a snack in the morning and the afternoon in order to meet your requirements.
- Add one new food at a time. Start with only a small amount at first. If you have trouble tolerating a new food, try it again in a few weeks.
- Do not drink liquids 15 minutes before and at least 30 minutes after meal times, as they
  may fill you up and leave you unable to eat your meal. This will also increase risk of
  dumping syndrome. See page 97 for more information on dumping syndrome.
- Moist meats such as canned fish, slow-cooked stews or strained soups are generally better tolerated than dry or tough meats. Use small amount of gravy or broth to moisten foods and improve tolerance.
- Use moist cooking methods, such as boiling, poaching, steaming, and stewing.
- Some people find spicy foods hard to tolerate at this stage. Avoid them if they cause you discomfort.

### Soft Food Diet Guide Week 5

Foods Allowed	Foods Not Allowed
Milk (skim, 1%)	Homogenized milk
Soy milk – plain (less than	Cream
12 grams of sugar each serving)	Soy milk with 12 grams or more sugar each serving
Skyr or Greek yogurt (smooth, 1% or less milk fat, less than 12 grams of sugar	Yogurt with pieces of fruit, seeds or nuts
each serving)	Hard cheese over 20% M.F.
Cottage cheese (1% or less milk fat,)	Milk and yogurt over 2% M.F.
Light soft cheese (e.g., cheese strings, Babybel, Laughing Cow) under 20% M.F.	
Cream soup	
Pre-mixed Protein	Protein supplements with
grams of protein in each	more than 12 grams of sugar each serving
Protein)	Protein bars
Protein Powder with 20 to 30 grams of protein in each serving (e.g., whey isolate or soy isolate) mixed with milk or water	
	Milk (skim, 1%) Soy milk – plain (less than 12 grams of sugar each serving) Skyr or Greek yogurt (smooth, 1% or less milk fat, less than 12 grams of sugar each serving) Cottage cheese (1% or less milk fat,) Light soft cheese (e.g., cheese strings, Babybel, Laughing Cow) under 20% M.F. Cream soup  Pre-mixed Protein Supplements with 20 to 30 grams of protein in each serving (e.g., Premier Protein) Protein Powder with 20 to 30 grams of protein in each serving (e.g., whey isolate or soy isolate) mixed with milk or

Continued on next page

# Week 5 (continued)

Food Group	Foods Allowed	Foods Not Allowed
Meat, Fish, Poultry and Alternatives	Poultry (soft, moist) Beef and pork (ground, extra lean) Fish (fresh/frozen filets) Tuna or salmon (canned, water-packed) Lean deli meats (limit to 2 times a week) Eggs Egg salad (without hard vegetables such as celery and onion) Peanut butter powder	Fried or barbequed meat Fried eggs Fried tofu Skin of chicken, turkey or other Sausages, wieners Bacon Fish with bones Peanut butter (chunky) Nuts and seeds
Fruit and Vegetables	Tofu Soft cooked legumes Soft cooked vegetables (e.g. cauliflower, broccoli, carrots) Soft Cooked fruits without skin and seeds (e.g. apple, pears peach, nectarine)	Fruit with seeds or tough skin (e.g., cherries, oranges, watermelon strawberries, raspberries, blackberries) Canned fruit packed in juice or syrup Dried fruit Raw or stringy vegetables (e.g. celery, snow peas, asparagus)
Grain Products and Starches	Cooked cereals such as oatmeal or cream of wheat (less than 12 grams of sugar each serving) Soda crackers or melba toast	Bread, bagels, toast Rice Pasta, noodles All other cereals Potato skins French fries

# Soft Food Diet Guide Week 5 (continued)

Food Group	Foods Allowed	Foods Not Allowed
Beverages	Water Low-calorie drinks (e.g., Crystal Light, sugar-free Kool-Aid, Gatorade Zero)	Carbonated drinks Caffeinated drinks Alcohol Juice
Fats and Oils  Use small amounts of these choices	Butter Non-hydrogenated margarine, Healthy oils (e.g., olive, canola) Light Mayonnaise Avocado	Hydrogenated margarine Lard, shortening Coconut, palm oil All others
Desserts, Sweets and Others	No sugar added jam, jelly Pudding (no sugar added or artificially sweetened) Sugar-free Jell-o Sugar-free Popsicles Artificial sweeteners	Agave Honey Molasses Regular jam, jelly Ice cream Popcorn Rice pudding Tapioca pudding Baked goods (e.g., muffins, pastries, cookies) Chips Candies All others

### Soft Food Diet Guide Week 6

• Remember to eat protein foods first in order to meet your 70 - 100 grams a day requirement.

**70** 

- This week, you may continue to eat all of the foods from the previous weeks.
- You may also begin to **add** the following foods:

Food Group	Foods Allowed	Foods Not Allowed
Milk and Alternatives	Same as Week 5	Same as Week 5
Protein Supplements	Same as Week 5	Same as Week 5
Meat, Fish, Poultry and Alternatives	Same as Week 5	Same as Week 5
Fruit and Vegetables	Fruit (fresh, soft) Canned fruit (water- packed) Vegetables (soft and well-cooked)	Same as Week 5
Crain Products and Starches     Limit these choices to small servings so that you can meet your protein goal	Same as pureed diet stage plus: Couscous Quinoa	Bread, bagels, toast Rice Pasta, noodles Baked potato with skin French fries
Beverages	Same as Week 5	Same as Week 5
Fats and Oils	Same as Week 5	Same as Week 5
Desserts, Sweets and Others	Same as Week 5	Same as Week 5

#### **Soft Food Recipes**

#### **High Protein Blended Soups**

First select a premade soup. Consider some of the following options:

- minestrone
- lentil
- navy bean
- cream of tomato
- cream of spinach
- potato soup

Ensure soups are thick (stew-like consistency), Puréed, or strained.

Add unflavoured protein powder containing 10 to 20 grams of protein or skim milk powder for each portion of soup. You can also add  $1/3 - \frac{1}{2}$  cup plain 0% or 1% Greek/Skyr yogurt.

Let the soup cool before adding protein powder or it may clump.

# President Choice (PC) Blue Menu Tomato and Roasted Red Pepper Soup with added protein and flavour

In large cooking pot, add:

- 1 can PC Blue Menu Tomato and Roasted Red Pepper Soup
- 1 can of white kidney beans or white navy beans
- Spices to taste such as basil, oregano, pepper etc.

Cook soup until beans are soft.

Add 30 to 45 ml (2 to 3 tablespoons) of Greek yogurt when cool to boost protein and make the soup creamier.

Leave as is or blend if desired.

#### **Spaghetti Squash Supreme Ingredients:**

- 1 spaghetti squash
- Special protein sauce (see next recipe)
- 1/2 lb of ground chicken, turkey, or beef (browned)
- 1 ½ cup soft vegetables such as mushrooms, zucchini, pepper, onion, garlic, spinach (cooked)

#### **Directions:**

Cut spaghetti squash lengthwise down the middle. Scrape out seeds and pulp.

Microwave squash for about 6 to 8 minutes or cook in 350°F oven for 20 minutes face down then 10 minutes face up.

Separate strands by running fork through squash from end to end.

Mix cooked meat and vegetables into sauce and pour over top of squash noodles.

#### **Special Protein Sauce Ingredients:**

- 1 to 2 cans white navy beans or kidney beans (drained)
- 2 cans of no salt added diced tomatoes
- Spices of your choice such as pepper, oregano, basil, bay leaf
- ½ cup any soft, cooked, steamed or microwaved vegetables
- ½ cup of fresh onion
- 1 fresh garlic clove

#### **Directions:**

Add everything to blender and blend. Cook in slow

cooker.

This sauce boosts protein and adds vegetables in your meals. It can be used as a pasta sauce, added to beef stew, as a base for chili, mixed into meatloaf or meatballs, or can be poured over chicken.

Make this sauce in large batches and portion into containers and refrigerate or freeze.

#### Crustless Spinach Quiche (Makes 8 small portions) Ingredients:

- 10 ml (2 teaspoons) vegetable oil
- 1 medium onion, chopped
- 1 package (10 ounces) frozen chopped spinach, thawed and drained
- 360 ml (1½ cups) shredded low-fat cheese under 20% M.F.
- 4 egg whites
- 2 whole eggs
- 80 ml (1/3 cup) cottage cheese (1% or less milk fat)
- 1.5 ml (1/4 teaspoon) cayenne pepper
- pinch salt
- pinch nutmeg

#### **Directions:**

Pre-heat oven to 375°F. Coat a 9 inch pie pan with vegetable cooking spray.

In a medium non-stick skillet, heat oil on medium high. Add onion and cook 5 minutes or until softened. Add spinach and stir in 3 more minutes or until spinach is dry. Set aside.

Sprinkle cheese in pie pan. Top with onion and spinach mixture.

In a medium bowl, whisk egg whites and whole eggs, cottage cheese, cayenne pepper, salt and nutmeg. Pour over spinach layer. Bake 30 to 35 minutes or until set. Let stand 5 minutes before cutting and serving.

#### Spanish Omelette (Makes 2 portions) Ingredients:

15 ml (1 tablespoon) drained/chopped roasted red pepper or ½ red pepper (diced)

30 ml (2 tablespoons) chopped tomato

2.5 ml (1/2 teaspoon) fresh minced garlic

3 to 4 button mushrooms, cleaned and chopped 2

tablespoons ham diced

120 ml (½ cup) liquid egg white

1 slice low-fat mozzarella cheese under 20% M.F. cut into strips

7.5 ml (1½ teaspoons) fresh cilantro chopped 30 ml

(2 tablespoons) fresh salsa

Fresh strawberries

#### **Directions:**

Coat a 6 inch non-stick omelette or frying pan with cooking spray or butter and heat to medium high. Add roasted red pepper, tomato, garlic, mushrooms, and ham. Sauté for about 4 minutes or until the mushrooms are soft.

Transfer the mixture to a bowl, drain off excess liquid and set aside. Wipe the pan clean with a paper towel and coat again with non-stick spray. Heat over medium heat and add the liquid egg white.

Using a rubber spatula, carefully lift the sides of the omelette up to let the liquid egg white spill underneath the cooked solid bottom. Repeat the process until the egg mixture is almost done then turn off the heat.

Immediately add the cheese and cilantro to the bottom half of the omelette followed by the sauté mixture. Gently fold the top half of the omelette over the bottom half and carefully slide onto a serving plate.

Top the omelette with salsa and garnish with strawberries.

# Diet for Life Guide Week 7 and Forward

- This is your new diet plan for the rest of your life.
- Remember to eat protein foods first so you can meet your 70 100 grams a day requirement.

**70** 

• Certain foods are not always tolerated until several months after surgery. They are listed in the 'Proceed with Caution' column.

Food Group	Choose More Often	Proceed with Caution (may not be tolerated)	Choose Less Often
Milk and Alternatives	Milk (skim, 1%) Soy milk – plain or unsweetened (less than 12 grams of sugar in a serving) Yogurt or Greek yogurt (smooth, 1% or less milk fat, and less than 12 grams of sugar in a serving) Cottage cheese (1% or less milk fat) Light soft cheese (e.g., cheese strings, Babybel, Laughing Cow) under 20% M.F. Hard cheese under 20% M.F.		Cream Chocolate milk Yogurt with 12 grams or more sugar in a serving Liquid yogurt drinks
Protein Supplements  • Your goal is to get protein from food sources but you may use protein shakes to help meet your goal.	Pre-mixed Protein Supplements – 20 to 30 grams of protein in each serving (e.g., Premier Nutrition)  Protein Powder – 20 to 30 grams of protein in each serving (e.g. whey isolate or soy isolate) mixed with milk or water	Protein Bars (at least 20 grams of protein in each serving and less than 10 grams of sugar and under 200 calories in each serving)	

# Diet for Life Guide (continued) Week 7 and Forward

Food Group	Choose More Often	Proceed with Caution (may not be tolerated)	Choose Less Often
Meat, Fish, Poultry and Alternatives	Poultry without skin Extra lean meat with visible fat cut off Fish: canned, frozen or fresh Eggs, egg whites Legumes, hummus Peanut butter powder Tofu (firm/extra- firm)	Red meat such as steak, roast beef, pork, lamb (Limit to 2 times a week) Plain or lightly salted nuts (1/4 cup or 60 ml a day maximum)	Breaded or fried meats, fish or poultry Meat with visible fat Bacon, sausages, wieners Nuts with coating or heavy seasoning
Fruit and Vegetables	Most fruits and vegetables: fresh, frozen or canned	Raw vegetables Fruit and vegetables with tough skin such as celery, apples and corn	Canned fruit with added sugar Fried vegetables Dried fruits (high in sugar)
Grain Products and Starches	Whole wheat toast, flat brea, pita bread, tortillas, wraps, crackers, english muffins  Baked or oven-roasted potatoes or sweet potatoes skin off  Cooked cereals such as oatmeal or cream of wheat (less than 12 grams of sugar for each serving)	Bread and rolls Rice Pasta	Bagels Croissants Muffins Scones High sugar cereals
Soups	Stew made with meat and vegetables Puréed soup		High-fat cream soups

# Diet for Life Guide (continued) Week 7 and Forward

Food Group	Choose More Often	Proceed with Caution (may not be tolerated)	Choose Less Often
Beverages	Water Low-calorie drinks (e.g., Crystal Light, sugar-free Kool-Aid,Gatorade Zero)	Caffeine: not until 3 months after surgery	Carbonated drinks Alcohol Juice Flavoured milk Specialty drinks with sugar and cream
Fats and Oils  • Use small portions for these choices	Ground flaxseeds Avocado Low-fat mayonnaise Low-fat salad dressing	Butter Non- hydrogenated margarine Canola oil Olive oil, canola oil	All others High fat salad dressing and sauces
Desserts, Sweets and Others	Sugar-free Jell-o Sugar- free Popsicles Artificial sweeteners	Spicy foods	Honey, jam, jelly, syrup Pies, pastries, donuts Ice cream Puddings, custards sweetened with sugar Candy High-fat and/or high- calorie baked goods Fried snacks including chips, cheesies, corn chips Popcorn

# Diet for Life Menu Ideas and Recipes

#### **Breakfast Ideas:**

Choose one food from each food group to create balanced meals, some examples are:

Protein	Vegetable and Fruit	Grain and Starch
½ cup egg whites or 2 eggs	1 small ripe pear or apple	1 slice of whole grain toast
120 ml (½ cup) 0% or	2 to 3 tomato slices	1 whole wheat English
1% cottage cheese	½ cup strawberries	muffin
15 to 30 ml (1 to 2	½ small banana	3 to 4 Ryvita crackers
tablespoons) peanut butter powder	½ cup canned peach	180 ml (¾ cup) high fibre cereal
85 grams (3 ounces) lean ham or turkey sausage	120 ml (1/2 cup) diced melon	180 ml (¾ cup) oatmeal
	120 ml (1/2 cup) blueberries	(1.1.1)
175 ml (3/4 cup) plain or artificially sweetened Skyr or Greek yogurt (choose 1 % milk fat or less)		
22.5 ml (1½ tablespoons) protein powder		

#### **Peanut Butter and Fruit Wrap:**

- 1 small 6" whole wheat tortilla
- 1 to 2 tablespoons peanut butter powder mixed with 1 − 2 tablespoons water
- ½ banana or thinly sliced apple with cinnamon

Spread peanut butter on wrap. Top with banana or apple with cinnamon and roll. Cut into bite sizes if desired. Keep refrigerated.

#### **Cheesy Wrap:**

- 1 small 6" whole wheat tortilla
- baby spinach leaves with stems removed
- cheese string or slice of cheese under 20% milk fat

Spread baby spinach leaves on centre of wrap. Top with cheese. Roll and wrap in paper towel.

Microwave for about 10 to 20 seconds depending on your microwave to melt the cheese.

#### **Nutty Oatmeal:**

Stir 15 to 30 ml (1 to 2 tablespoons) peanut butter powder, almond butter or nut butter of your choice into 180 ml (3/4 cup) oatmeal cooked with hot water or milk.

Wait for nut butter powder to dissolve.

Add cinnamon and top with fruit of your choice.

#### A Cheesy Change:

Mix 120 ml (½ cup) 0% or 1% cottage cheese with diced canned peaches.

Spread on 3 to 4 Ryvita crackers, Melba toast or 1 slice of whole grain toast.

#### McHome:

Top ½ of a whole wheat English muffin with Dijon mustard, a tomato slice, 1 to 2 slices lean ham and 1 scrambled or boiled egg.

#### **Yogurt Parfait:**

120 ml (½ cup) of blueberries

30 to 45 ml (2 to 3 tablespoons) of bran buds or 60 ml (1/4 cup) oats

120 ml (½ cup) plain or artificially sweetened Greek yogurt or mix Skyr yogurt with flavoured yogurt Mix together.

#### **Lunch Ideas:**

#### Choose one food from each food group to create balanced meals, some examples are:

Protein	Vegetable and Fruit	Grain and Starch
60 ml (1/4 cup) hummus	10 Cucumber slices	5 to 8 Triscuits
30 ml (2 tablespoons) peanut butter powder	1 small apple 30 to 60 ml (2 to 4	3 to 4 flatbread crackers 2 to 3 slices
60 to 90 grams (2 to 3 ounces) canned	tablespoons) tomato bruschetta	toasted baguette
tuna/salmon	240 ml (1 cup) chopped	1 slice whole grain bread
120 ml (½ cup) 0% or 1% cottage cheese	garden salad 120 ml (½ cup) raw or	1 small 6" whole wheat tortilla
90 ml (1/3 cup) egg salad with light mayonaise	steamed vegetables (fresh or frozen)	90 ml (1/3 cup) pearl barely
120 ml (½ cup) beans such as baked, black, kidney	90 ml (1/3 cup) pineapple	½ to 1 small whole wheat pita
60 to 90 grams (2 to 3 ounces) diced chicken		

#### Fajita Time:

- 1 small 6" whole wheat tortilla
- 120 ml (½ cup) cooked black beans
- 30 ml (2 tablespoon) salsa
- 15 ml (1 tablespoon) plain Skyr/Greek yogurt
- 1 ounce shredded cheese less than 20% milk fat
- diced lettuce and tomato

Fill tortilla and roll or fold in half and warm in microwave if desired.

#### Pizza Pizzazz:

Top whole wheat English muffin with tomato sauce, pineapple, 2 to 3 ounces diced chicken or ham, and shredded cheese. Broil until cheese is melted.

#### Egg Salad Sandwich:

Enjoy 1/3 cup of egg salad made with light mayonnaise with 3 to 4 flatbread crackers such as Ryvita and 1 cup chopped garden salad topped with light salad dressing and 6 to 8 chopped almonds.

#### **Topped Up Chicken Stew:**

Add 90 ml (1/3 cup) of cooked pearl barley to 120 ml ( $\frac{1}{2}$  cup) cooked vegetables to 120 ml ( $\frac{1}{2}$  cup) of chicken stew.

## **Supper Ideas:**

#### Choose one food from each food group to create balanced meals, some examples are:

Protein	Vegetable and Fruit	Grain and Starch
120 ml (1/2 cup) lentils	120 ml (1/2 cup) mixed	½ small sweet potato
120 ml (½ cup) chili with	vegetables	60ml (1/4 cup) quinoa
beans or extra lean	120 ml (½ cup) carrots	60ml (1/4 cup) scalloped
ground beef	120 ml (1/2 cup) tomato and	potato (low fat recipe)
120 ml (½ cup) turkey stew	cucumber salad	60ml (1/4 cup) whole wheat
90 grams (3 ounces) grilled	120 ml (1/2 cup) green	couscous
or baked chicken breast	beans	Small whole wheat roll
90 grams (3 ounces) grilled	120 ml (1/2 cup) zucchini	4 to 8 oven baked potato
or baked fish	120 ml (1/2 cup) cooked	fries
90 grams (3 ounces)	mushrooms	
extra lean pork or beef (as tolerated)	120 ml (½ cup) broccoli	
90 grams (3 ounces) veggie burger (about ½ small burger)		

#### Fish and Chips:

Bake 90 grams (3 ounces) fish seasoned with lemon pepper, garlic and pepper. Serve with 120 ml (½ cup) steamed carrots and 4-8 oven baked potato fries.

#### **BBQ Chicken:**

Brush 90 grams (3 ounces) chicken breast with BBQ sauce and grill. Serve with 120 ml ( $\frac{1}{2}$  cup) green beans and  $\frac{1}{2}$  of a small sweet potato.

#### Chili:

Serve 240 ml (1 cup) chili with mushrooms over 60 ml ( $\frac{1}{4}$  cup) whole wheat couscous or quinoa. Sprinkle with parmesan cheese.

#### **Next Day Chili:**

Put 120 ml (½ cup) chili on 240 ml (1 cup) of romaine lettuce with 15 to 30 ml (1 to 2 tablespoons) of salsa and 30 grams (1 ounce) low-fat shredded cheese under 20% M.F.

#### **Burger Delight:**

Enjoy ½ small veggie burger patty on a small whole wheat roll. Top with 120 ml (½ cup) tomato and cucumber salad.

#### Vegetarian Bean Chili

#### Ingredients:

- 15 ml (1 tablespoon) vegetable oil
- 1 large chopped onion
- 2 cloves minced garlic
- 15 ml (1 tablespoon) chili powder
- 5 ml (1 teaspoon) cumin
- 5 ml (1 teaspoon) dried oregano
- 1 can 796 ml/28 ounces) diced tomatoes
- 1 can (540 ml/19 ounces) red kidney beans drained
- 1 can (540 ml/19 ounces) black beans drained
- 1 can (540 ml/19 ounces) chick peas drained
- 1 green, red or yellow pepper diced
- 240 ml (1 cup) sliced mushrooms
- 15 ml (1 tablespoon) cider vinegar
- ½ teaspoon cinnamon
- pinch salt and fresh ground black pepper

#### **Directions:**

In a large saucepan or pot, heat oil over medium to high heat. Sauté onion and garlic until softened.

Stir in chili powder, cumin, oregano and tomatoes with juice. Add beans, peppers, mushrooms, vinegar, salt, cinnamon and pepper.

Bring to boil then reduce heat to medium low and simmer for 20 minutes. Freeze leftover portions. This recipe cooks well in a crock pot too.

Serve with a small whole wheat roll or slice of whole grain bread to balance the meal.

If you would like more recipe ideas see list of recommended bariatric books that you can purchase on page 113.

# **Key Eating Habits**

It is important to follow some healthy eating habits to avoid discomfort, pain, vomiting and to help with weight loss.

- Take 30 to 60 minutes to eat a meal
- Always eat protein first
- Keep food moist to help with tolerance. Use moist cooking methods, like stewing, steaming, boiling, poaching, pressure cooking, or baking in foil
- Cut food into small pieces
- Chew every bite thoroughly and eat slowly
- Put spoon/fork down between bites
- Pay attention to taste. Note taste and flavour of food
- Sit at the kitchen or dining room table to eat
- Avoid distractions, such as using the phone, watch television, surfing the net, or working while eating
- Stop eating as soon as you feel full
- Do not eat and drink at the same time. Separate solids and liquids by 30 minutes
- Avoid straws if they cause too much gas
- Have water nearby at all times

# **Key Diet Guidelines**

## Get enough fluids:

- Drink at least 2 litres (8 cups) of fluid a day. You will need to sip on liquids throughout the day.
- Start slowly and increase the amount you drink as you tolerate fluid. Listen to your body. It is important to get enough fluids for many reasons.
- Drink all fluids 15 minutes before or 30 minutes after a meal. This prevents dehydration, bloating, low food intake and vomiting.
- ☑ Do not drink fluids with meals once you are eating solid food. Soup and dry cereal are the same as eating and drinking, as they are a combination of liquid and solids.

#### Remember:

- Measure the amount of fluid you have each day for at least 8 weeks after surgery.
- Make sure you record and measure your food and fluid intake. You can use an app like Baritastic or MyFitnessPal. You can also write with pen and paper if that works better for you. Make sure you are as detailed as possible.

### Get enough protein:

- Meeting your protein needs helps to preserve lean muscle mass during weight loss.
- Protein helps with healing right away.
- Have your protein at the beginning of each meal to be sure that you meet your daily requirements.
- Your initial goal is to have at least 70 grams of protein each day.
   Divide this amount into at least 3 to 5 meals and snacks.
   This will be increased after you see the Bariatric clinic dietitian at Providence Healthcare.
- For more information on how to meet your daily protein requirements refer to pages 83 to 87.

# Get enough vitamins and minerals:

- Take your multivitamin/multimineral supplement and any other supplements prescribed every day.
- Remember to crush or split pills for 6 8 weeks post-op, and as long as needed after that.
- There are more details starting on page 95.

# **Get Enough Protein**

# **Protein Supplements:**

- During the first 6 weeks after surgery, you need to drink protein shakes in order to get enough protein. After the first 6 weeks, you may need to continue to drink protein supplements until you are able to get enough protein from food. Ready-to-drink protein supplements can be used or you can make your own using protein powder.
- If you choose to buy a liquid ready-to-drink protein supplement look for one that has at least **20 grams of protein**, **less than 6 grams of sugar and less than 3 grams fat for each serving.** Refer to "How to Choose a Protein Supplement" guide on page 88.
- Do not choose any of the following supplements as they are too high in sugar: Carnation Breakfast Essentials, Boost, Ensure and Slim Fast.
- If you decide to make your own protein shakes using a protein powder supplement, choose
  one made of whey protein isolate or a soy protein isolate, both of which are lactose-free if
  you are lactose intolerant. When choosing a protein powder look for one that has 20 to 30
  grams of protein, less than 5 grams of sugar and less than 3 grams of fat for each
  serving.
- When using protein powder to make your own protein shake, read and follow the directions on the label carefully. Mix the protein powder with milk, soy milk with less than 10 grams of sugar for each serving or water. Do not mix with juice as this will provide too many calories and sugar.

# How many protein drinks do I need in a day? During the Full Fluids and Puree Stages:



- During the first 2 weeks, most of your protein comes from protein drinks. The rest of your protein comes from food sources.
- Your goal is to have at least 70 grams of protein in a day. The amount of protein in the protein supplement or shake you decide to use will determine how many you need in a day.
- If your shake has 30 to 40 grams of protein for 1 serving then you need to drink at least 1 to 2 every day to meet your protein needs.
- If your shake has 20 to 30 grams of protein for 1 serving then you need to drink at least 2 to 3 every day to meet your protein needs.
- Ask your dietitian if you are not sure of how many protein shakes to drink each day.
- It is important to know how much protein is in your protein shake or the protein powder you buy so your dietitian can help you meet your protein needs.
- It is important to keep track of your protein intake for the first several weeks. The chart on the next page will help you figure out how much protein you are getting.
- You can either use the pages at the back of this book to keep track, a notebook or use a
  website or smartphone app, such as My Fitness Pal or Baritastic.

#### When you start eating soft foods:

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- Continue to aim for at least 70 grams of protein each day.
- As you move beyond week 3, you will start to get more protein from food sources.
- During the Puréed stage (week 4) of your diet, you can start slowly cutting down on your protein supplements. However, you will need to keep track of how much protein you get from foods and protein supplements to ensure adequate daily protein intake.
- Bring your food records to each of your follow-up appointments with the dietitian after surgery.

# **Dietary Sources of Protein**

# You need to have at least 70 grams of protein each day.

If you take a protein supplement, you need to calculate the number of grams of protein you need as well as your supplement to total 70 - 100 grams a day. Ask for help if you need help calculating.

Meat, Poultry, Eggs:

Food (Cooked)	Serving Size	Calories	Protein (g)
Chicken,	3 oz	141	28
skinless			
Steak	3 oz	158	26
Turkey, roasted	3 oz	135	25
Lamb	3 oz	172	23
Pork	3 oz	122	22
Ham	3 oz	139	14
Egg, large	1 egg	71	6

#### Seafood:

Food (Cooked)	Serving Size (oz)	Calories	Protein (g)
Salmon	3	155	22
Tuna	3	99	22
Shrimp	3	101	20
Lobster	3	76	16
Scallops	3	75	14

# Legumes, Grains, Vegetables:

Name of Food	Serving Size	Calories	Protein (g)
(Cooked)	(cup)		
Pinto Beans	1/2	197	11
Adzuki Beans	1/2	147	9
Lentils	1/2	101	9
Edamame	1/2	95	9
Black Beans	1/2	114	8
Red Kidney	1/2	112	8
Beans			
Chickpeas	1/2	134	7
Black-eyed Peas	1/2	100	7
Fava Beans	1/2	94	7
Wheat Berries	1/2	151	6
Kamut	1/2	126	6
Lima Beans	1/2	105	6
Quinoa	1/2	111	4
Peas, Green	1/2	59	4
Spinach, cooked	1/2	41	3

# **Dietary Sources of Protein (Con't)**

# **Nuts and Seeds:**

Food	Serving Size	Calories	Protein (g)
Soy Nuts	1 oz	120	12
Pumpkin Seeds	1 oz	159	9
Peanuts	1 oz	166	7
Peanut Butter	1 Tbsp	188	7
Almonds	1 oz	163	6
Pistachios	1 oz	161	6
Flax Seeds	1 oz	140	6
Sunflower Seeds	1 oz	140	6
Chia Seeds	1 oz	138	5
Walnuts	1 oz	185	4
Cashews	1 oz	162	4

#### **Dairy Products:**

Food	Serving Size	Calories	Protein (g)
Greek Yogurt	6 oz	100	18
Cottage Cheese	4 oz	81	14
(1% fat)			
Regular Yogurt	1 cup	100	11
(nonfat)			
Milk, Skim	1 cup	86	8
Soy milk	1 cup	132	8
Mozzarella (part	1 oz	72	7
skim)			
String Cheese	1 piece (0.75 oz)	50	6
(nonfat)			

#### More about protein:

A piece of meat the size of a normal deck of cards in thickness and surface area weighs about 90 grams (3 ounces). This amount contains around 20 grams of protein.

#### Ways to get the amount of protein you need each day:

• Breakfast: 20 to 30 grams

Morning snack: 5 to 10 grams

• **Lunch**: 20 to 30 grams

• Afternoon snack: 5 to 10 grams

• Dinner: 20 to 30 grams

• Bedtime snack: 5 to 10 grams if needed

# Tips for getting more protein:

After bariatric surgery you should consume moist protein. Pureed soups, stew, chili and meat cooked in a slow cooker will help you get moist protein.

Try to drink 250 to 500 ml (1 to 2 cups) of skin milk, or 1% milk, or unsweetened soy milk a day. This gives you fluids and protein at the same time.

#### **Examples of high protein snacks and foods:**

- Cheese with 4 to 6 crackers
- Cottage cheese with fruit
- Tuna, egg or salmon salad made with mayonnaise serve on top of crackers
- Peanut butter powder (mixed with water into a spread) with banana
- Kidney beans, chick peas, lentils or other legumes added to soup
- Greek yogurt added to a serving of lentil, bean, tomato or cream soup

# When you have questions:

If you have any questions about the amount of protein you need from food, ask our dietitian during your appointment.

# **Choosing a Protein Supplement**

Pages 88-90 courtesy of The Ottawa Hospital Bariatric Centre of Excellence

#### Why do I need a protein supplement after surgery?

- Protein is needed to help your body heal after surgery.
- Your body will start using stored protein (muscles, hair, nails) if you do not consume enough protein to slow down the turn-over loss.
- Symptoms of not enough protein: tired and/or weakness, muscle loss, hair loss, weight plateau, and hunger.
- For the first few weeks after surgery you will be eating very small amounts of Puréed and soft foods. You will need to add a protein supplement to help you get enough quality protein to help you recover.
- Protein supplements can be taken as a liquid that you drink. They can also be added as a powder to soft or Puréed foods.

**REMEMBER:** You will start your protein supplement **once home after surgery** and continue to take it for the **first 3 weeks** after surgery. After 3 weeks, it is important to choose high quality protein **foods** rather than relying solely on supplements. Talk to your dietitian about your protein needs.

#### What to look for:

- Protein powder or liquid made from Whey Protein Isolate or Soy Protein Isolate
- At least 20 30 grams protein per 250 mL serving (or 1 scoop)
- Less than 6 grams of sugar and less than 3 gram of fat per 250 mL serving
- You may want to choose Lactose free

#### Remember:

- Most people need 70-100 grams of protein per day
- Read labels, measure foods, or use online food tracking programs to determine how much protein you are consuming
- Talk to your bariatric dietitian for your specific needs.

# **Protein Supplements**

Name Brand	Company	Protein/ serving (grams)	Protein Type	Best mixed with
Ready to Drink Protein				
Premier Protein	Premier Nutrition	30	Whey protein isolate & concentrate	Ice
Fa!rlife Nutrition Plan	Fa!rlife	30	Casein and Whey	Ice
Protein Max 30g	Ensure	30	Milk Protein Concentrate and Calcium Caseinate	Ice
IsoPure Zero Carb	Nature's Best / Dynamic Nutrition	25	Whey protein Isolate	Ice
Powder Protein				
Unjury (online only) www.unjury.com	Prosynthesis Laboratories	20	Whey protein Isolate	Milk, soy milk or water
Whey Gourmet	PVS	21	Whey protein isolate	Milk, soy milk or water
LeanFit Whey Protein	GFR Health	36	Whey protein isolate	Milk, soy milk
Isoflex Whey Protein Isolate	Allmax	27	Whey protein isolate	Milk, soy milk
Whey Protein fruit splash	Weider	20	Whey protein Isolate	water
Weider 90% Protein	Weider	25	Soy protein isolate	Milk, soy milk
Absolute Soy Protein	Interactive Nutrition	24	Soy protein isolate	Milk, soy milk

Products may vary. Amounts of protein list above are subject to change. Unity Health Toronto is not endorsing any of these products and is not receiving any compensation to list them.

#### Where can you buy protein supplements?

Walmart®
 Nutrition House®
 Amazon

Costco®
 Shoppers Drug
 Grocery stores

GNC ®Mart®Online

■ Popeye's ® ■ Rexall®

# **Protein Supplement Pictures**

Unity Health Toronto is not endorsing any of these products and is not receiving any compensation to list them.

#### **Ready to Drink Examples:**



Ensure Protein Max 30g



Premier Protein



Isopure Protein Drink



Fa!rlife Nutrition Plan

#### **Powder Examples:**



Webber Naturals 100% Isolate European Whey



Isoflex Pure Whey Protein Isolate



Pure Protein 100% Whey



Kaizen Naturals Whey Isolate



Allmax Isoflex Chiller



Leanfit Whey Protein



Isopure Zero Carb

# **Adding Flavour to your Protein Supplement:**

Taking the same protein supplement each day for the first 3 weeks may become boring. Add variety with these tips and recipes.

### How to mix the protein supplement:

Type of Product	Mix with	Mixing Tips
Protein Powder: Chocolate or Vanilla Flavour	Mix with:  Skim or 1% milk  Lactose-reduced milk  Soy beverage (low sugar)  Water	Add ice and mix in blender with:  Sugar-free syrups or extracts Nestea Singles, Lipton Iced Tea to Go, Crystal Light Instant decaf coffee crystals Frozen fruit & yogurt
Protein Powder: Fruit Flavoured	Mix with water	<ul><li>Serve over ice</li><li>Add ice and mix in blender</li></ul>
Protein Powder: Unflavoured	Mix into:     Soups, stews, chili     Yogurt, applesauce     Mashed potatoes     Purees, sauces     Baked goods     Smoothies	<ul> <li>Dissolve small amounts of protein powder into semi-liquid foods/beverages</li> <li>Do not add to boiling sauces or soups. Wait until cooled before adding protein powder</li> </ul>
Ready-to-drink Protein Shake	Mix into:     Over ice     Smoothies (see recipe section)	Add ice and mix in blender with:  Sugar-free syrups or extracts Nestea Singles, Lipton Iced Tea to Go, Crystal Light

#### Protein Shakes - Make Your Own

(Recipes reprinted with permission courtesy of the Registered Dietitians at Toronto Western Hospital (UHN) Bariatric Surgery Program)

As your lifestyle program progresses your goal is to use less and less protein shakes and by the end of 3 to 6 months get all of your protein from solid food.

Remember – Do not add any fruit until Week 3.

#### **Strawberry Banana Shake:**

Blend together until smooth:

- 1 scoop unflavoured or vanilla protein powder (20 30g protein)
- ½ cup (120 ml) milk frozen into ice cubes
- ½ cup (120 ml) plain yogurt
- 4 whole unsweetened frozen strawberries
- 2 inches (5 cm) banana
- ½ teaspoon (2.5 ml) vanilla
- 1 package artificial sweetener if desired

#### Peach Shake:

Blend together until smooth:

- 1 scoop unflavoured or vanilla protein powder (20 30g protein)
- ½ cup (120 ml) milk frozen into ice cubes
- ½ cup (120 ml) plain yogurt
- ¼ cup (60 ml) chopped unsweetened frozen peaches
- ½ teaspoon (2.5 ml) vanilla
- 1 package artificial sweetener if desired

# **Helpful Hints:**

- Prepare frozen fruit in small baggies or containers in advance so they are ready to pop into the blender when needed.
- Use plain, no sugar added yogurt since you are adding your own fruit.
- Try adding no sugar-added flavourings and extracts for extra flavour.
- Do not add sugar, honey, juice or sweetened syrups.

# **Label Reading**

It is important to learn how to read labels so you can compare products and make the best choice for your health. If you need help reading food labels, talk to your dietitian.

For example the portion size on the label gives you the nutrition information for that size only.

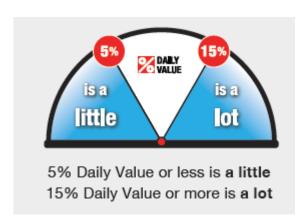
This example is 125 mL or ½ cup.

If you eat more or less than this amount you have to multiply or divide to know how much is in the amount you eat.

Note: g = grams

#### Protein:

You need to have at least 70 grams (g) of protein a day. This product has 3 grams (g) in 125 mL or ½ cup.



This product has 15 grams of protein in a 300 gram bowl.

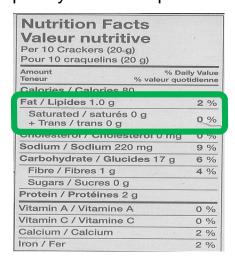
Nutrition Fact Per 125 mL (87 g)*	ts
Amount	% Daily Value
Calories 80	
<b>Fat</b> 0.5 g	1 %
Saturated 0 g + Trans 0 g	0 %
Cholesterol 0 mg	
Sodium 0 mg	0 %
Carbohydrate 18 g	6 %
Fibre 2 g	8 %
Sugars 2 g	
Protein 3 g	
Vitamin A 2 % Vitan	nin C 10 %
Calcium 0 % Iron	2 %

Nutrition Facts Valeur nutritive Per 1 bowl (300 g) / Pour 1 bol (300 g)		
Amount % Dai Teneur % valeur quo	ily Value tidienne	
Calories / Calories 440		
Fat / Lipides 19 g	29 %	
Saturated / Saturés 4 g + Trans / Trans 0.2 g	21 %	
Cholesterol / Cholestérol 35 mg		
Sodium / Sodium 860 mg	<b>36</b> %	
Carbohydrate / Glucides 53 g	18 %	
Fibre / Fibres 4 g	16 %	
Sugars / Sucres 6 g		
Protein / Protéines 15 g		
Vitamin A / Vitamine A	45 %	
Vitamin C / Vitamine C	4 %	
Calcium / Calcium	20 %	
Iron / Fer	20 %	

# Label Reading (Con't)

#### Fats:

- Choose foods less than 5% Daily Value (DV), or 3g, of fat per serving
- Choose foods especially low in saturated fat (<1g)</li>
- Avoid trans fats completely whenever possible



# Sugar:

- Limit sugar to no more than 10g per serving
- For dairy products, tolerable sugar level is 12g per serving of milk and 7g per serving of yogurt
  - Look for unsweetened or no sugar added dairy
  - o Artificially sweetened dairy is acceptable
- Fresh, whole fruit is slower to leave the pouch due to fibre content which minimizes the risk of dumping syndrome.



# **Getting Enough Vitamins and Minerals after Surgery**

After surgery, you will only be eating small amounts of food. Your body will also not absorb all the vitamins and minerals from your food. Problems caused by a lack of these vitamins and minerals are common after surgery and can lead to serious consequences.

Because of this, it is hard to get enough vitamins and minerals from food alone.

To keep you healthy and help prevent problems you need to take supplements for the rest of your life.

Start taking your vitamin and mineral supplements the day you come home from the hospital.

#### Remember:

- Your dietitian will tell you the correct amount of each supplement to take and the time of day to take each one. You may also need to take other vitamin or mineral supplements before or after surgery. Your doctor or dietitian will talk to you if you need more.
- The next 5 pages give you more information about why vitamins and minerals are important for your health and well-being.
- Please bring all of the supplements you take with you to each appointment with the dietitian and pharmacist.

### **Multivitamin and Mineral Supplementation**

#### **Bariatric Multivitamins**

Celebrate brand of bariatric multivitamins are available through our pharmacy (416) 285-3666 x3805. Home delivery is available.

Celebrate branded bariatric multivitamins are available in 2 forms: chewable tablets or capsules.

The advantage to taking bariatric multivitamins is they meet 100% of the post-op vitamin and mineral requirements with minimal number of "pills". This makes it easier for you to stick to a supplement routine. A bariatric multivitamin routine can be as little as 5 "pills" a day in 3 doses, whereas over-the-counter vitamin and mineral combinations can be well over 10 "pills" a day in 4 or more doses.

#### If taking Celebrate Essential Multi 2-in-1 (chewable tablets):

- Chew 2 tablets 2x/day with food (4 tablets a day total)
- Celebrate Essential Multi 2-in-1 meets 100% of the post-op vitamin and mineral recommendations with the exception of iron (see Iron section below)
- Continue to take your prescription iron & vitamin C at bedtime
   If taking Celebrate capsules:
- Do not take this if you are already taking Celebrate Essential Multi 2-in-1 tablets!
- Take 1 capsule 3x/day with food (3 capsules a day total)
- Celebrate capsules meet 100% of the post-op vitamin and mineral recommendations with the exception of calcium and iron.
- Need to be paired with Calcium Citrate:
  - Either Celebrate Calcium Citrate chew 3x/day (3 chews a day total)
  - OR Calcium Citrate tablets 600mg 2x/day (or two tablets of 300mg 2x/day) crushed or split
- Continue to take your prescription iron & vitamin C at bedtime

#### <u>Iron</u>

- Celebrate bariatric multivitamins do not contain iron. This is because calcium in multivitamins will bind to iron and decrease absorption and effectiveness, so they should be taken separately, at least 2 hours apart from each other.
- Continue to take prescription iron if you were prescribed them before surgery
- If you were not prescribed iron before surgery:
  - Chew 2 tablets of Celebrate Iron+C daily at bedtime if you are a menstruating individual or person.
  - Chew 1 tablet of Celebrate Iron+C daily at bedtime if you are a male or non-menstruating individual or person.









#### **Bariatric Multivitamins (continued)**:

Sample Bariatric vitamin & mineral routine:

Time	What to take
Breakfast	2 Tablets Celebrate Essential Multi 2-in-1
Lunch	2 Tablets Celebrate Essential Multi 2-in-1
Dinner	
Bedtime	Prescription iron + Vitamin C OR Celebrate Iron+C (1 – 2 tablets, see above)

Or

Time	What to take	
Breakfast	1 Capsule of Celebrate Capsule	
	Celebrate Calcium Citrate Chew	
Lunch	1 Capsule of Celebrate Capsule	
	Celebrate Calcium Citrate Chew	
Dinner	1 Capsule of Celebrate Capsule	
	Celebrate Calcium Citrate Chew	
Bedtime	Prescription iron + Vitamin C OR Celebrate Iron+C (1 – 2 tablets, see above)	

The above sample routines are maintenance dosing levels based on normal post-op bloodwork. You may be prescribed additional vitamin/mineral supplements depending on your bloodwork, individual needs, and risk level.

#### **Over-the-Counter Vitamins and Minerals**

Because over-the-counter vitamins and minerals are not complete in meeting post-op bariatric surgery guidelines, you will require a combination of vitamins and minerals to meet your needs:

- Vitamin B1 (Thiamine) 12mg
- Vitamin B12 500 1000mcg
- Folate under 1000mcg
- Vitamin D 3000IU
- Calcium Citrate 1200 1500mg (in divided doses of 600mg)
- Iron over 18mg
- Zinc 8 22mg
- Copper 1 − 2 mg

Keep in mind, the above recommendations are for maintenance when your bloodwork is optimized before surgery. This means, if you have or develop a deficiency, your bariatric team may recommend specific prescriptions on top of the above to optimize your levels.

Children's or 'gummy' types of vitamins are **NOT** recommended, as they contain very minimal vitamins/minerals.

Do not take any timed-release supplements, as they're not as well absorbed after bariatric surgery.

After surgery, your vitamin and mineral supplement may have to be split into 2 or crushed for better absorption and tolerance. You can begin splitting your multivitamin for practice before surgery to get used to doing this.

Take your multivitamin with a meal for better absorption. Iron supplements should be taken with Vitamin C on an empty stomach for optimal absorption.

Check to see if the multivitamin you are taking has Iron. If so, do not take your multivitamin at the same time as calcium citrate. Calcium will bind to the iron in your multivitamin and decrease absorption.

#### Calcium Citrate (with added Vitamin D)

- You need to take a type of calcium called calcium citrate. Take one that has vitamin D
  added to it. Most pharmacies carry this type of calcium, but you may need to ask for help
  finding it. It is available in pill, liquid, and chewable forms.
- You need to take 600 mg of calcium citrate 2 times a day. This gives you a total dose of 1200 mg of calcium a day. You can only take 600 mg at one time because your body cannot absorb more than this at one time.
- You may take the calcium citrate with vitamin D supplement with or without food.
- Take your calcium citrate with vitamin D supplement at least 2 hours before or 2 hours after taking your multivitamin or any other iron-containing supplement. Iron and calcium compete for absorption in the body, so if taken together, you reduce the absorption of each.
- Talk to your pharmacist if you are on other medications, as some cannot be taken at the same time as your calcium citrate with vitamin D supplement.

# Calcium - Why you need it

Calcium is needed to develop and maintain healthy bones, nails and muscles. It helps in blood clotting and heart nerve functions as well as prevents osteoporosis (decreased bone density).

Low amounts of calcium cause bone loss, bone fractures and osteoporosis (decreased bone density).

Sources of calcium in your diet include all milk products, oysters, scallops, salmon and sardines with bones, tofu, green leafy vegetables, broccoli and dates.

# Vitamin D - Why you need it

Vitamin D is needed for normal growth and healthy bones, teeth and nails. Vitamin D helps the absorption of calcium and phosphorous and prevents osteoporosis (decreased bone density).

Low amounts of vitamin D may cause a problem called osteomalacia or softening of the bones. Sources of vitamin D in your diet include fortified milk products, eggs, liver and fish liver oils.

Along with the calcium citrate with added vitamin D you need to take a plain vitamin D supplement. Your dietitian will tell you how much and the type to buy. It will be between 2000 and 3000 IU. Follow your dietitian's advice about the time of day to take this.

#### **B**<sub>12</sub>

There are 3 options for this supplement regularly. You can take:

- a 1000 mcg oral pill every day OR
- a 1000 mcg sublingual tablet dissolved under your tongue every day OR
- a 1000 mcg injection from your family doctor once a month

## B<sub>12</sub> - Why you need it

B<sub>12</sub> has many functions. It is needed for energy and red blood cell production, utilization of folic acid, and nervous system function. It also helps break down carbohydrates and fats and helps build proteins.

Low amounts of vitamin B<sub>12</sub> may cause anemia and neurological disorders. Symptoms of anemia include looking pale, feeling weak, tired, dizzy and short of breath.

To prevent low Vitamin  $B_{12}$ , you may need to have intramuscular injections if the oral vitamin  $B_{12}$  supplement is not enough.

Sources of vitamin B<sub>12</sub> in your diet include meat (organ meat), eggs, fish, legumes, cheese and yogurt.

#### Iron

Your multivitamin and mineral supplements contains some iron. However, you may need to take additional iron if you are at risk for iron deficiency. Your doctor or dietitian will tell you if you need to take iron.

Taking extra iron may upset your stomach. Talk to your dietitian or doctor if this causes a problem for you.

# Iron - Why you need it

Iron helps make healthy red blood cells that carry oxygen to all of the cells in your body. You may need to take iron.

Low amounts of iron cause anemia, a weakened immune system and problems with your neurological system. Symptoms of anemia include looking pale, feeling weak, tired, dizzy and short of breath.

Sources of iron in your diet include meat, liver, eggs, shellfish, nuts, sardines, legumes, broccoli, peas, spinach, prunes, raisins, bran and iron enriched cereals and wheat germ. Non-meat sources of iron are not well absorbed after surgery so eating iron-rich foods alone may not be sufficient for some people.

It is important to have a source of vitamin C when eating foods containing iron to improve the absorption of iron. Sources of vitamin C include fresh citrus (do not drink juice), strawberries, tomatoes, red bell peppers, and kiwi fruit.

## Helpful hints for taking your supplements:

- Keep your supplements in a handy spot but always out of the reach and safe away from children.
- Follow a regular schedule to help you remember to take them.
- Use a pill organizer to keep track of the medications you take.
- If you take other medications, ask your pharmacist to help you design a schedule for all of your pills. Some medications cannot be taken with vitamin and mineral supplements.

### Here is a sample schedule:

Time	What to take	
Breakfast	1 tablet Kirkland Formula Forte Women	
	Sublingual Vitamin B12 500mg	
Lunch	Calcium Citrate 600mg (or 300mg x 2 tablets)	
	Vitamin D 1000IU	
Dinner	1 tablet Kirkland Formula Forte Women	
	B50 Complex	
Bedtime	Any prescription Iron + Vitamin C	

Or

Time	What to take	
Breakfast	1 tablet Webber Naturals Women's Most Complete Multi	
	Sublingual Vitamin B12 500mg	
<b>Morning Snack</b>	Calcium Citrate 300mg	
Lunch	1 tablet Webber Naturals Women's Most Complete Multi	
	B50 Complex	
Dinner	Calcium Citrate 600mg (or 300mg x 2 tablets)	
	Vitamin D 1000IU	
Bedtime	Any prescription Iron + Vitamin C	

This sample schedule is only an example. Your schedule is based on your blood tests and overall needs after surgery. The schedule is changed by members of your health care team based on the results of your blood tests and individual needs.

Arrange to have your blood tests done about 2 to 3 weeks before you come for your 3, 6, and 12 month appointments in the Providence Healthcare Bariatric Clinic. This allows time for the tests to be done and the results to be ready for the team to review with you.

# **Diet Related Problems after Surgery**

## **Nausea and Vomiting**

After surgery, it is common to have an upset stomach or nausea. This can be caused by:

- the surgery
- eating/drinking too much
- eating/drinking too fast
- certain smells
- pain medication

Nausea caused by the surgery can last a few days to a few weeks. This should go away over time. If you think the problem may be caused by pain medications, contact your doctor for a change in medication.

Nausea can also happen when you eat or drink too much. Eating too much will put pressure on the surgical area.

Pressure and distention may also cause vomiting. Too much vomiting can cause dehydration and nutritional deficiencies. It may also cause problems with your incision healing. This is not healthy.

You can prevent vomiting by:

- eating slowly
- eating small amounts
- · chewing well
- not laying down after eating
- not drinking fluids for 15 minutes before or 30 minutes after meals
- not drinking with meals

You can usually eat again shortly after vomiting.

If you have persistent nausea and vomiting or if you are concerned go to the Emergency Room.

#### **Stricture**

A stricture can occur when the new connection between the stomach pouch and small intestine heals but forms scar tissue as it heals. The scar tissue makes the opening of the connection narrow. You may have symptoms such as difficulty swallowing liquids or food, persistent nausea and/or vomiting, increased saliva or mucous, pain with swallowing or regurgitation of food or liquids.

Contact your surgeon or health care provider if you think you may have a stricture.

The surgeon may be able to fix the stricture by a procedure done in endoscopy. A tube with a small balloon on the end is passed down your esophagus through the scar. The balloon is then inflated to stretch the scar wide enough for food and liquid to go through. The tube and balloon are then removed. This process may need to happen 2 to 3 times to help.

### **Dehydration**

Dehydration means that you do not have enough water in your body to function well. People with severe dehydration are admitted to the hospital and given fluids through their veins.

#### Symptoms of dehydration are:

- dark urine
- nausea
- feeling tired all of the time
- lower back pain

- making less urine
- dry mouth and tongue
- feeling dizzy
- feeling irritable

#### You can prevent dehydration by:

- Drinking at least 2 litres (8 cups) of fluid a day.
- Sip fluids all day long. Buy a sports bottle and keep on filling it and drinking.
- Sucking on ice chips or sugar-free popsicles if you have nausea.

### **Dumping Syndrome**

This happens when the new, smaller stomach pouch empties into the bowel too fast. It is caused by:

- eating or drinking too much fat
- · eating or drinking too much sugar
- eating and drinking at the same time
- Eating large portions
- Eating too quickly

# **Symptoms of Dumping Syndrome are:**

- abdominal pain
- nausea
- cramping
- diarrhea
- shakes or chills

- sweating
- feeling faint
- increased heart rate
- bloating

#### **To prevent Dumping Syndrome:**

- Eat protein at each meal and snack.
- Eat food that has less than 10 grams of sugar per serving.
- Avoid deep fried and/or greasy food.
- Avoid drinking with a meal. Drink at least 15 minutes before and 30 minutes after a meal.
- Eat slowly and chew well.
- Avoid eating large portions.

#### Constipation

Some people may have stool that is hard to pass. This is called constipation.

Constipation may be caused by:

- eating less fibre because you are eating less food
- not drinking enough fluids during the day
- pain control medications such as Tylenol #3
- lack of physical activity
- medications and supplements such as iron and calcium

It is normal to have from 1 bowel movement every 3 days to 3 bowel movements of soft stool daily.

To help your stools stay soft and bowels move, your fluid intake needs to be at least 2 litres (8 cups) a day and you need to have regular physical activity.

If you have not had a soft bowel movement after 2 days start adding 2 pieces of prunes (only after week 7 Diet for Life) to your meal plan. Ensuring you are staying hydrated during the day. You can do this 1 to 2 times a day to help. Remember that prunes adds extra calories to your diet plan so be sure to count this.

Please take the laxatives prescribed by your bariatric surgeon. If you continue to experience constipation or pain when you have a bowel movement, you can try adding a fibre supplement such as psyllium husks, benefibre, etc. to your diet. Start by adding a small amount in your diet such as 5 ml (1 teaspoon) daily and increase slowly 5 to 10 ml (1 to 2 teaspoons) 1 to 2 times a day until your stool is soft and your bowels move every 1 to 3 days. Increasing too fast will cause an increase in gas and can cause problems and pain.

You should not use a fibre supplement if you are not drinking 2 litres (8 cups) of fluid a day. This amount of water is needed to make the fibre supplement work. If you cannot drink 2 litres of fluid a day and take a fibre supplement, you may become more constipated.

If you have not had a bowel movement after 3 days, you can talk to your pharmacist about adding a product such as Lax-A-Day or Senokot. Your pharmacist can counsel you on the dose to start with and how to take this type of product.

If you do not have a soft bowel movement for 3 days, contact the Providence Healthcare Bariatric Clinic.

#### Diarrhea

Some people have loose or watery stools called diarrhea for a few months after surgery. This can happen as your body gets used to the changes. It can also happen with Dumping Syndrome (Gastric Bypass only).

To help prevent diarrhea, avoid:

- · food and fluids that contain caffeine
- alcohol and prune juice
- spicy foods
- high fat or high sugar foods

Drink extra fluids. You may need to take a fibre supplement to help thicken your stool. You may need to add foods that thicken stool to your diet such as bananas, applesauce and oatmeal. This depends on the stage of diet you are on when you have diarrhea. Talk to your dietitian.

If you have many bouts of diarrhea several times daily that continues more than 3 days, contact the Providence Healthcare Bariatric Clinic.

#### Gas

After surgery it is normal to have pain or discomfort from gas in your abdomen. Food is a common cause of gas. Foods that may cause gas are:

- beans, lentils, legumes
- · vegetables such as broccoli, cauliflower
- melons
- apple skins
- eggs
- beer
- carbonated drinks
- sugar alcohols

To help prevent gas:

- eat slowly
- chew food well
- avoid skipping meals
- avoid straws
- avoid chewing gum

If you snore or breathe through your mouth, you may also have more gas.

#### **Hair Thinning or Hair Loss**

Hair thinning or loss can happen during rapid weight loss. You may be the only one who can see your hair loss. Many people have hair thinning between 3 and 9 months after surgery. Your hair grows back as your body recovers.

To help prevent problems:

- follow your dietary recommendations
- make sure you get enough protein and water in your diet
- take your vitamin and mineral supplements each day

#### **Vitamin and Mineral Deficiencies**

As you recover and adjust to your new lifestyle, your needs may change.

It is very important to follow the diet and vitamin and mineral supplement guidelines advised. Refer to page 95 to 100 for information on vitamins and minerals.

After bypass surgery you have an increased risk of developing serious and life-threatening consequences from a nutritional deficiency.

Following your diet and taking your vitamin and mineral supplements as directed will help prevent problems and help you feel better, stronger, and healthier.

Blood tests will be done and monitored before surgery and at your follow-up appointments to assess for vitamin and mineral deficiencies. You may need to take more supplements.

Some vitamin and mineral deficiencies do not have obvious symptoms and some have consequences later in life.

It is very important that you come to your follow-up appointments and that you get your blood tests done 2 to 3 weeks before your scheduled visits. This is the only way that we can know if you have a deficiency.

# **Kidney Stones**

After bariatric surgery there is an increased risk of developing a certain type of kidney stone. Your risk increases if you have a history of having kidney stones already.

Urine is made up of water and substances such as calcium and oxalate. Crystals begin to form in the kidney when:

- there are higher than normal amounts of these substances in the urine
- the amount of water in the urine is low, which makes the urine concentrated The crystals get bigger and bigger as more substances build up around them. Then they are called kidney stones.

Kidney stones often cause severe back pain. The pain may move to the groin if the stone moves down the ureter. You may see blood in your urine. A CT scan of the kidneys, ureters and bladder can show the presence of most stones. An ultrasound or dye injection can also show the size of a stone.

Kidney stones may stay in the kidney or move down a ureter to be sent out of the body in the urine.

Some kidney stones are too big to pass out in the urine. They may block the flow of urine from a kidney to the bladder and need to be removed by surgery.

#### Ways to prevent kidney stones: Drink

#### fluids:

- Make sure you follow the instructions for the amount of fluids to have for each stage of your diet. This is very important.
- You can find the details about the amount of fluids to drink in the Nutrition and Diet After Surgery section.

#### Eat recommended amount of protein:

- Make sure you follow the instructions for the amount of protein to have for each stage of your diet. This is very important.
- You can find the details about the amount of protein to have in the Nutrition and Diet After Surgery section.

# Follow a low oxalate diet only if your dietitian tells you to: Avoid these high oxalate foods:

• beets	<ul><li>greens</li></ul>	<ul><li>soy, tofu</li></ul>
<ul> <li>black tea, coffee, soda</li> </ul>	<ul><li>leeks</li></ul>	<ul><li>spinach</li></ul>

celery
 peanuts
 sweet potatoes
 cocoa, chocolate
 prunes
 wheat germ

quinoa

#### Take all of your supplements:

dried beans

 Make sure you take all of your daily supplements. Members of your bariatric health care team will monitor the supplements you take and make changes based on your blood test results.

wheat bran

Do not take any extra supplements unless advised by your health care team.

#### Remember:

- You and members of your health care team will work together to determine your risk of getting kidney stones based on your health history and lifestyle.
- You may have to follow a special diet or make changes to the supplements you take.

# Reactive Hypoglycemia after Bariatric Surgery

### What is reactive hypoglycemia?

After bariatric surgery you may experience reactive hypoglycemia:

- Hypoglycemia means low blood sugar
- Reactive hypoglycemia is having low blood sugar after eating a meal or snack

This may happen after eating foods that are high in sugar or simple carbohydrates. It is thought to be related to dumping syndrome. Reactive hypoglycemia can also happen after Oral Glucose Tolerance Testing; if your doctor sends you for this test, please inform them that this is not recommended.

# How do I know if I have reactive hypoglycemia?

You have reactive hypoglycemia if you have:

- any symptoms listed below a few hours after having a meal or snack and
- these symptoms go away after eating or drinking

# What are the symptoms of reactive hypoglycemia?

You may feel one or more of these:

- Hungry
- Shaky
- Dizzy
- Sleepy
- Sweaty
- Anxious
- Weak
- Confused

# What should I do if I think I have reactive hypoglycemia after having a meal or snack?

Having low blood sugar is not good for your overall health and can be lifethreatening.

- If you think you have reactive hypoglycemia, check your blood sugar.
- If your blood sugar is less than 4 mmol/L, you need to treat it to bring your sugar above 4 mmol/L. Follow the steps on the next page.

If you do not have a meter, talk to your family doctor, health care provider, or the pharmacist in the Providence Healthcare Bariatric Clinic to get a meter.

### When your blood sugar is less than 4 mmol/L:

Please refer to page 111 for treatment.

You may feel like eating sweet foods like cookies, cake and candy. Even though these foods are high in sugar and can raise your blood sugar, your blood sugar will go too high too fast, which is not safe. This can then lead to another low blood sugar because too much insulin is released.

### How can I prevent reactive hypoglycemia?

You can help prevent reactive hypoglycemia by following your diet guidelines for bariatric surgery.

- eat 3 healthy meals and 2 healthy snacks each day
- space meals and snacks 2 to 3 hours apart
- eat protein at each meal and snack time
- avoid skipping meals and snacks
- · avoid or limit alcohol depending on what stage of diet you are at
- · avoid or limit caffeine depending on what stage of diet you are at
- avoid sweets like cookies, cakes, candy, pop, juice and sweet drinks

Instead of sugars and simple carbohydrates, eat complex carbohydrates, because they release less sugar over a longer period of time. Having a complex carbohydrate with protein will slow this release even more.

# Diabetes and/or Low Blood Sugar after Surgery

When you go home from the hospital after surgery, you will probably not be taking any medications for diabetes. This includes oral medications and insulin. When you come in for your 1-week follow-up visit, your diabetes medications will be re-assessed. This is why it is very important to test your blood sugars often after surgery.

If you are an individual living with diabetes, you should test your blood sugar 2 to 4 times a day, including a fasting blood sugar first thing in the morning.

### What do I do with my blood sugar results?

- Record your blood sugars on a Blood Sugar Record at the back of this book. Record the
  results even though your meter has a memory. This will help your diabetes care provider see
  the patterns in your blood sugar levels.
- When you test your blood sugars on a regular basis, you can see if your blood sugars are in good control.

### Sample Blood Sugar Record

Date	Break	Breakfast		Lunch		Supper	
	Before	After	Before	After	Before	After	
Jan 15	6		4.8	6			5.4
Jan 16	6.3	8		7.8	5.5		
Jan 17		7.5			6.2		8.3
Jan 18	7			8.5			

### What should blood sugars be?

### Target blood sugar levels are:

Before meals	4 to 7 mmol/L
2 hours after first bite of meals	5 to 10 mmol/L

Your blood sugar targets may be different. You and your diabetes care provider will work together to set your blood sugar targets.

## Low Blood Sugar after Surgery

Since you are eating in small amounts, you are at risk of having low blood sugar. Low blood sugar is also called hypoglycemia.

Some signs of low blood sugar are:

- sweating
- dizziness
- feeling tired
- feeling shaky
- blurred vision

- headache
- clammy skin
- slurred speech
- mood change
- feeling hungry

You need to check your blood sugar if you have any of the above symptoms. If you have problems with low blood sugar, you need to test your blood sugar.

### **Up to 3 Weeks after Surgery**

### When your blood sugar is below 4 mmol/L:

- 1. Take 15 grams of a fast acting carbohydrate right away by sipping 175 ml (¾ cup) juice. Doing this will raise your blood sugar.
- 2. Wait 15 minutes and check your blood sugar again.
- 3. Repeat these steps until your blood sugar is in your target level then sip a protein drink to keep your blood sugar in your target range.

### After 3 Weeks and More after Surgery

### When your blood sugar is below 4 mmol/L:

- 1. Take 15 grams of a fast acting carbohydrate right away. Examples of having 15 grams of fast acting carbohydrate are:
  - Chewing 3 to 4 dextrose or glucose tablets read the label or
    - Drinking 175 ml (¾ cup) juice

Taking 15 grams of a fast acting carbohydrate will raise your blood sugar quickly.

- 2. Wait 15 minutes and check your blood sugar again.
- 3. If your blood sugar is still below 4 mmol/L, treat again with one of the fast acting carbohydrates listed above.
- 4. Repeat these steps until your blood sugar is in your target level.
- 5. If your next meal or snack is more than 1 hour away, you need to have a solid snack that contains carbohydrate and protein and fits into the stage of diet you are at for example cheese and crackers.

If you have any concerns about having low blood sugar or what to do, reach out to your Unity Health BCOE team.

### What is A1C?

A1C is also called glycosolated hemoglobin. A1C shows the 3-month average blood sugar level before the test was taken. You do not have to fast before this test. When your A1C result is less than 7%, you decrease your risk of

complications. The A1C is not the same as your blood sugar results. The

chart below will help you know what your A1C results mean.

Comments	A1C Results:	Your average blood sugar during the past 3 months:
Normal Range:	5%	5 mmol/L
4.4% to 6.4%  Lowest risk of complications	6%	6 to 7 mmol/L
Lower risk of complications	7%	8 to 9 mmol/L
Higher risk of complications:	8%	9 to 11 mmol/L
Need to make changes to	9%	11 to 13 mmol/L
improve blood sugar control	10%	12 to 15 mmol/L
	11%	14 to 17 mmol/L
	12%	15 to 19 mmol/L

### **Book Resources**

Name: The Complete Weight-Loss Surgery Guide and Diet

Program Author: Sue Ekserci and Dr. Laz Klein

This book is written by the registered dietitians and surgeons of the Humber River Regional Hospital Bariatric Surgery Program. It provides information on bariatric surgery procedures and the risks and benefits of these surgeries. It is the only Canadian weight loss surgery cookbook and includes 150 recipes.

Name: Weight Loss Surgery Cookbook for Dummies Author:

Brian Davidson, David Fouts and Karen Meyers

This book offers recipe ideas for different diet phases after bariatric surgery.

Name: Eating Well after Weight Loss Surgery Author:

Patt Levine and Michele Bontempo-Saray

Co-written by Patt Levine, who had lap-band surgery in 2003, this book offers recipe ideas for different diet phases after surgery.

Name: Recipes for Life after Weight-Loss Surgery Author:

Margaret Furtado and Lynette Schultz

Written by a clinical dietitian and chef, this book provides recipe ideas and information on entertaining and eating on the go.

# Bariatric Surgery Workbook

# **After Orientation Class**

Checklist and acknowledgements:
☐ I reviewed this Orientation Guidebook in detail
I understand that success after surgery depends on making lifelong dietary and lifestyle
changes
I understand that bariatric surgery is not a quick fix
I understand that having bariatric surgery is a commitment to taking vitamin and mineral
supplements for the rest of my life
☐ I understand that I will need to follow the recommendations from the bariatric team in order to
be a candidate for surgery
□ I understand that I need to be nicotine and cannabis-free for at least 6 months to be a candidate for bariatric surgery (See page 23)
Why do I want bariatric surgery? (Think of reasons beyond the number on the scale. What would it mean for you if you lost weight? What could you do that you can't do now? What would you have that you don't have now?)
A goal that I am currently working on:
Questions I have:
(Ask us at your next appointment!)

# **After Nutrition Class**

Checklist and acknowledgements:
I have reviewed the "Nutrition and Diet" section of the guidebook (Starting page Error! Bookmark not defined.)
☐ I am having 3 regular meals daily
I am having a snack between meals longer than 4 hours apart
☐ I am eating 70 – 100g protein daily
☐ I am evenly distributing my protein 20 – 30g at each meal.
☐ I am following the "Healthy Plate" method of eating discussed in Nutrition Class
I am measuring my food portions using measuring cups, measuring spoons, and/or a food scale
☐ I am drinking 2L (64oz) of water daily unless otherwise specified by a health professional
☐ I am using Nutrition Facts Tables to help me choose better options while shopping
☐ I take time to eat and chew my food well. My meals take at least 20 minutes
☐ I notice when I am full and stop eating
I practice eating my proteins first, whenever I can
☐ I eat meals without distractions, such as TV, phones, computers, or while driving
☐ I have minimized takeout and fast foods
☐ I have read the Orientation Guidebook in detail
☐ I have re-reviewed Nutrition Class notes and fully understand the material
<ul> <li>I understand why adequate protein intake and even distribution is important</li> <li>My Nutrition Questionnaire is completed in detail based on my previous dietary habits and has</li> </ul>
been submitted to BariatricCentre@providence.on.ca
☐ I understand that I am required to submit 5 days of food journals to my dietitian 2 days before
every appointment before and after surgery
☐ [If you are living with diabetes] I am regularly tracking my blood sugars and understand that I
am required to submit my blood sugar logs (matching the days of my food journals) to my
dietitian 2 days before every appointment
A goal that I am currently working on:
A goal that I am currently working on.
Questions I have:
(Ask us at your next appointment!)
(Not us at your next appointments)

# **2 Months Before Surgery**

Shecklist:
<ul> <li>I continue to keep a food journal of what I eat, amounts I eat, and when I eat</li> <li>I continue to follow my Bariatric Team's recommendations</li> </ul>
☐ I have cleaned out my cupboards, fridge, and freezer of trigger foods
☐ I have stopped drinking liquid calories, such as juice, pop, energy drinks, iced tea, etc.
☐ I have stopped drinking all caffeinated beverages, such as coffee, tea, energy drinks, etc.
☐ I have stopped drinking all carbonated beverages, such as pop, diet pop, and carbonated
water
☐ I have stopped drinking alcohol
☐ I continue to be abstinent from nicotine and cannabis products
☐ [For menstruating females] I have a plan in place for non-oral birth control, because I
understand that I cannot be pregnant for 18 months after bariatric surgery
□ I understand that the recommended time off work is 4 – 6 weeks and have made appropriate
arrangements with my employer/school to accommodate my eating and hydration needs once
I return to work/school
I continue to follow a regular exercise routine
goal that I am currently working on:
Questions I have:
Ask us at your next appointment!)

# 1 Month Before Surgery

Checklist:
☐ I have filled my Medi Meal prescription
I have read the instructions on how to take Medi Meal (See page 30)
I continue to be abstinent from nicotine and cannabis products
I continue to be abstinent from caffeinated and carbonated beverages
I thoroughly understand the dietary stages after surgery
<ul> <li>I have begun to explore recipes in each dietary stage after surgery to better prepare myself (such as cooking and freezing meals ahead of time)</li> </ul>
[If you are living with diabetes] I have a glucometer and understand that I need to regularly check my blood sugars. I also know what medication adjustment(s) I need to make.
☐ [For menstruating females] I have a plan in place for non-oral birth control, and my family doctor is making adjustments as needed. I understand that I cannot be pregnant for 18 months
after bariatric surgery.
☐ I continue to follow a regular exercise routine
a 1 continue to follow a regular exercise realine
A goal that I am currently working on:
Questions I have:
(Ask us at your next appointment!)

# 1 to 2 Weeks Before Surgery

Che	cklist:
	I have reviewed page 34 of the guidebook
	I have cleared my cupboards, fridge, and freezer of any trigger foods
	I have prepared smaller, portion-controlled plates and containers
	I have purchased my (bariatric) multivitamin and mineral supplements to begin taking after
	surgery
	I understand how and when to take each vitamin and mineral after surgery
	I have purchased my protein powder/shakes to begin taking after surgery
	I thoroughly understand the 5 dietary stages after surgery and which foods I can/cannot have
	at each stage
	I have a blender/food processor ready to use for the full fluids and puree diet stages after
	surgery
A goa	al that I am currently working on:
Ques	tions I have:
(Ask ι	us at your next appointment!)
`	

# 1 Day before Surgery

Checklist:
☐ I have reviewed page 35 of the guidebook
I have made arrangements for transportation to and from the hospital
I understand that I cannot drive myself home after discharge from the hospital
☐ I have packed my vitamin/mineral supplements so that I can start taking them post-op day 1
☐ I will stop Medi Meal midnight before surgery
☐ I will not eat or drink anything the midnight before surgery (except medications with a small sip
of water, at the advice of my doctor)
A goal that I am currently working on:
Questions I have:
(Ask us at your next appointment!)

# **At Home Post-Op**

Checklist:
☐ I am following the full fluids diet stage for 2 weeks (see page 56 onwards)
□ I am meeting 70 – 100g protein evenly distributed through the day
I am spreading my protein shake/supplements throughout the day
☐ I am measuring my food portions using measuring cups, measuring spoons, and/or a food
scale
☐ I am recording food and water intake in detail
☐ I am taking my (bariatric) multivitamin and mineral supplements daily
☐ I am sipping on water throughout the day, aiming to achieve 2L (64oz) daily unless told
otherwise by a healthcare professional
☐ I am taking my medications one at a time with unsweetened applesauce, crushing them for
better absorption  ☐ I am walking 10 – 15 mins 2 – 3 times a day
☐ If you are living with diabetes] I am regularly testing my blood sugars before I eat and 2 hours
after meals. I am keeping a log of my blood sugar results to share with my pharmacist, nurse,
and dietitian
☐ [If you are living with diabetes] I am regularly tracking my blood sugars and understand that I
am required to submit my blood sugar logs (matching the days of my food journals) to my
dietitian 2 days before every appointment
☐ I understand that I am required to submit 5 days of food journals to my dietitian 2 days before
every appointment after surgery
A most that I are assumently socialized and
A goal that I am currently working on:
Questions I have:
(Ask us at your next appointment!)
(violational appointments)

### 3 Weeks Post-Op

# Checklist: ☐ I am following the Puréed diet stage for 2 weeks (longer, as needed). (See page 61 onwards) ☐ I am slowly introducing one new food at a time to test tolerance ☐ I am meeting 70 – 100g protein evenly distributed throughout the day ☐ I am eating 3 meals and 2 – 3 snacks daily ☐ I practice eating my proteins first, then vegetables, then starch ☐ I am trying to eat more protein through food sources to slowly decrease my protein shake/powder use ☐ I am measuring my food portions using measuring cups, measuring spoons, and/or a food scale ☐ I take my time eating. Each meal takes about 45 minutes ☐ I am practicing mindful eating strategies ☐ I am recording food and water intake in detail ☐ I am taking my (bariatric) multivitamin and mineral supplements daily ☐ I am sipping on water throughout the day, aiming to achieve 2L (64oz) daily unless told otherwise by a healthcare professional ☐ I am taking my medications one at a time with unsweetened applesauce, crushing them for better absorption $\Box$ I am walking 10 – 15 mins 2 – 3 times a day. I am aiming to walk longer when I am able to ☐ [If you are living with diabetes] I am regularly testing my blood sugars before I eat and 2 hours after meals. I am keeping a log of my blood sugar results to share with my pharmacist, nurse, and dietitian [If you are living with diabetes] I am regularly tracking my blood sugars and understand that I am required to submit my blood sugar logs (matching the days of my food journals) to my dietitian 2 days before every appointment ☐ I understand that I am required to submit 5 days of food journals to my dietitian 2 days before **every** appointment after surgery A goal that I am currently working on: Questions I have: (Ask us at your next appointment!)

### **5 Weeks Post-Op**

# Checklist: ☐ I am following the soft diet stage for 2 weeks (longer, as needed). (See page 64 onwards) ☐ I am slowly introducing one new food at a time to test tolerance ☐ I am meeting 70 – 100g protein evenly distributed throughout the day ☐ I am eating 3 meals and 2 – 3 snacks daily ☐ I practice eating my proteins first, then vegetables, then starch ☐ Most of my protein intake is coming from whole food sources. I only use protein shakes/powders when I really need them to meet my daily protein target ☐ I am measuring my food portions using measuring cups, measuring spoons, and/or a food scale ☐ I take my time eating and chew foods very well. Each meal takes about 45 minutes ☐ I am recording food and water intake in detail ☐ I am taking my (bariatric) multivitamin and mineral supplements daily ☐ I am sipping on water throughout the day, aiming to achieve 2L (64oz) daily unless told otherwise by a healthcare professional ☐ I am taking my medications one at a time with unsweetened applesauce, crushing them for better absorption ☐ I am walking 10 – 15 mins 2 – 3 times a day. I am aiming to walk longer when I am able to ☐ [If you are living with diabetes] I am regularly testing my blood sugars before I eat and 2 hours after meals. I am keeping a log of my blood sugar results to share with my pharmacist, nurse, and dietitian ☐ [If you are living with diabetes] I am regularly tracking my blood sugars and understand that I am required to submit my blood sugar logs (matching the days of my food journals) to my dietitian 2 days before every appointment ☐ I understand that I am required to submit 5 days of food journals to my dietitian 2 days before every appointment after surgery A goal that I am currently working on: Questions I have: (Ask us at your next appointment!)

# 7 Weeks Post-Op and Onwards

hec	klist:
	I am following the "regular" diet stage (see page <b>Error! Bookmark not defined.</b> onwards) I am slowly introducing one new food at a time to test tolerance
	I understand that it is normal to still have some food intolerance(s). If I do, I wait at least one week before trying that food again.
	I am meeting 70 – 100g protein evenly distributed throughout the day I am eating 3 meals and 2 – 3 snacks daily
	I practice eating my proteins first, then vegetables, then starch
	Most of my protein intake is coming from whole food sources. I only use protein
	shakes/powders when I really need them to meet my daily protein target
	I am measuring my food portions using measuring cups, measuring spoons, and/or a food scale
	I take my time eating and chew foods very well. Each meal takes about 30 minutes I am recording food and water intake in detail
	I am taking my (bariatric) multivitamin and mineral supplements daily
	I am sipping on water throughout the day, aiming to achieve 2L (64oz) daily unless told otherwise by a healthcare professional
	I am taking my medications one at a time with unsweetened applesauce, crushing them for better absorption
	I engage in a minimum of 150 minutes of cardiovascular activities each week
	I am starting to introduce strength and resistance exercises into my weekly routine
	[If you are living with diabetes] I am regularly testing my blood sugars before I eat and 2 hours after meals. I am keeping a log of my blood sugar results to share with my pharmacist, nurse, and dietitian
	and dietitian [If you are living with diabetes] I am regularly tracking my blood sugars and understand that I
	am required to submit my blood sugar logs (matching the days of my food journals) to my dietitian 2 days before every appointment
	I understand that I am required to submit 5 days of food journals to my dietitian 2 days before
	every appointment after surgery
goal	that I am currently working on:
uocti	ions I have:
	s at your next appointment!)

# **My Emotional Food Journal**

When did I get the urge to eat? What was the time and date?	What was my mood or feeling at the time?	What did I do? Did I eat the food or do something else?	What did I eat?	How much did I eat?	How did I feel after I ate?

My Journal
"Fall in love with taking care of your body."


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Unity Health Bariatric Centre of Excellence (BCoE) – Bariatric Surgery Program

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