

The Gastric Band Toolkit

This is the beginning.

Only you make the choices that

One day at a time changes your

Life!

Keep on track.

Implement change, and

TAKE CONTROL.



Ellner Bariatric

Congratulations on your decision to undergo Gastric Banding surgery!

You have made a very important, life changing decision and it is our job to provide you with the information and education that you need to make the most effective use of this very powerful tool.

This guide is designed to provide you with an understanding of the Gastric Banding System and information on how to navigate through the process to achieve the health and weight loss you desire.

You must enter this process fully committed and with a solid understanding of the risks of surgery, the health and weight loss expectations and what we need of you as a patient in order to assist you in the most effective way possible. We are here to support you. The surgery is only the beginning and you must enter into it with the expectation that it's a life-commitment and a lifetime of follow-up and strict adherence to the program is essential.

Dr. Julie Ellner

www.ellnerbariatric.com

619-286-7866

Pre Op Process

You will be expected to go through a pre-operative process, which will be scheduled for you before gastric banding surgery. You may be required to visit with a psychologist, dietician, Internist or other specialists. Your final appointment with Dr. Ellner will be within 2 weeks prior to surgery. You will talk about the procedure in detail. This is your chance to ask last minute questions so bring your list.

It is critical that you follow your pre-op day itinerary that will have been sent to you when you scheduled your surgery. Missing any one of your appointments or showing up late will result in cancellation of your surgery.

Appointments on your pre-op day may include:

Registration at the hospital

You will complete hospital registration information, which will also verify your insurance coverage. Please have all insurance cards and your deposit (if applicable) with you.

Blood Draw and Xrays at the Hospital

You will undergo a last set of blood testing, and some patients will get a chest x-ray and ultrasound to measure the liver.

Meeting with Dr. Ellner

You will meet with Dr. Ellner to go over all the details of your medical records one last time. This will also be your opportunity to ask any questions that you have regarding any aspect of your surgery or recovery. If you have lots of questions, you might find it helpful to make a list to bring

with you. After your discussion you will undergo a full physical examination.

Pre-Operative Education

You will receive pre-operative education regarding exactly what to do the day of surgery, where to go at what time, etc. You will sign consent forms as well as receive very important instructions on how to walk and deep breathe after surgery, so you minimize your risk of complications.

One Week Before Surgery

Drink your bottle of Magnesium Citrate in the morning and stay on all liquids for the rest of the week. This will clean out your digestive tract. You might find that the laxative effects of this compound last several hours or into the next day, so please be prepared. Stay on liquids only, including your protein drinks, with no solid food. Drink 12oz of LOW SALT V8 per day for 5 days. Stop two days before surgery.

Two Days Before Surgery

Stop V8 and start CLEAR LIQUIDS only. This means that at this stage, all protein drinks must be thin and watery, not milky. You should continue your protein drinks through the day before surgery.

The Night Before Surgery

Drink 32 oz of any of the following: regular Gatorade (not low carb) or apple, cranberry or grape juice. (No orange juice) Drinks lots of clear liquids right up until midnight. **After midnight, you should not eat or drink anything.** unless advised by your surgeon to take certain medicines in the morning.

Support

It's a good idea to ask a friend or family member to be at the hospital with you for comfort and support. This is an emotional time, and you'll want a friend or family, as well as support groups to help you through it. Be sure to arrange for someone to drive you home and stay with you the first night. Under NO circumstances should you drive yourself.

What to Expect the Day of Surgery

You must arrive a couple of hours before your scheduled operation in the Same Day Surgery Department. If you would like to bring a family member with you to keep you company during this time, you may do so. During this time, you will be answering the same questions from several different staff. Be patient, as this is for your safety- we check and double check all of our information with you so no mistakes are made. An IV will be started, antibiotics and blood thinners will be administered and you will put on your designer, one-of-a-kind, backless daywear. Actually it's a hospital gown.

You will then be transported to the Pre-Op Holding Area, right next to the Operating Room. You will meet your anesthesiologist and one of the nurses that will be in the room with you during your surgery. You may ask the anesthesiologist for a dose of anti-anxiety medication at this time if you like. We are very sensitive to the fact that this might be a scary time for many folks, so don't be shy about asking for this.

In the Operating Room

When the room is prepared for you, you will be taken, on a gurney, into the operating room. You might find that it is a little chilly, but we will bundle you up with blankets so you'll be quite warm. The nurse will place a safety belt across your body, and pads and pillows may be placed underneath your legs. Your arms will be extended out from your sides and softly padded.

The anesthesiologist will give you IV medications that will make you drowsy and you will inhale oxygen and anesthetic gases that will make you drift off to sleep. Once you are asleep, a tube will be placed through your mouth, into your trachea (windpipe) to deliver oxygen and anesthetic gases to your lungs. A combination of IV and inhaled gases will keep you safe and asleep for the surgery. The tube will be removed as soon as you awaken, so you will likely have no recollection of its having been there at all.

The Process of Gastric Banding Surgery

Surgery begins with a small cut near the belly button.

Your belly is filled with a gas to create space so it's easier for Dr. Ellner to operate.

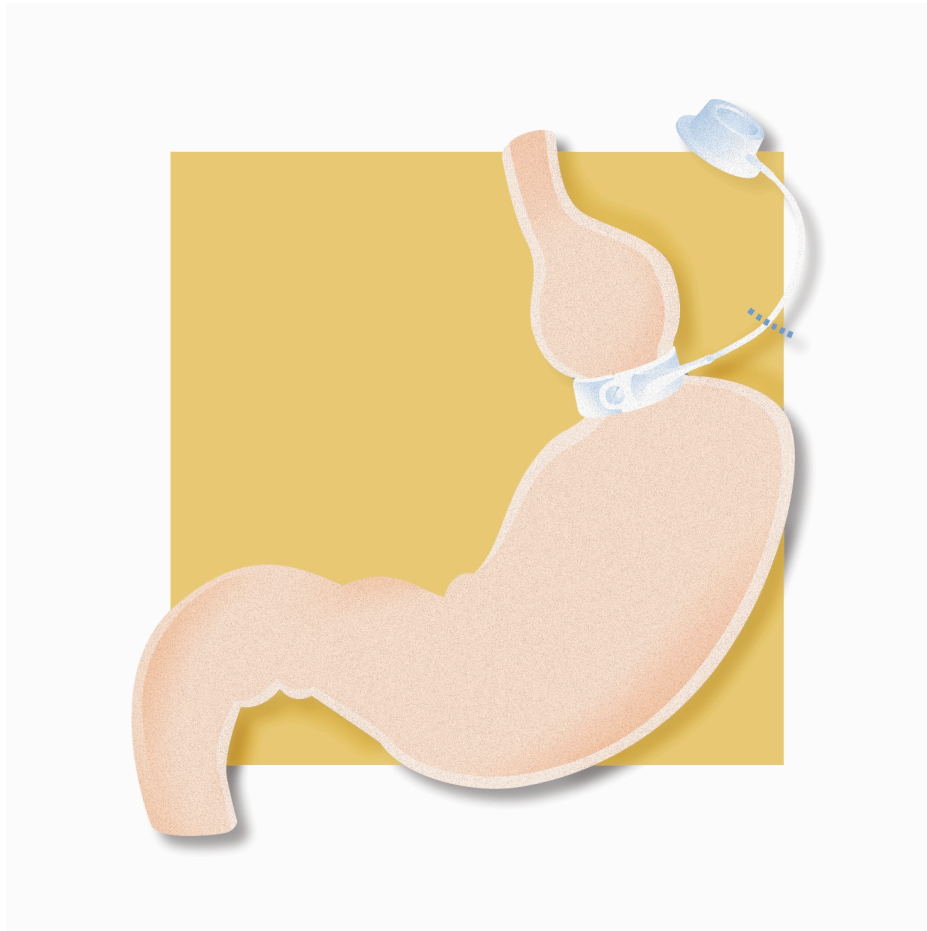
Then the laparoscope (camera) is placed. It's very thin, less than half an inch in diameter. It has a light and a tiny camera that sends a picture to a TV screen.

Four other small cuts are then made nearby so thin tools can be inserted.

Using these tools, a little tunnel is made through the tissue behind your stomach.

The band is wrapped around the upper part of your stomach and a buckle like mechanism secures it. This creates the small pouch that will be your new stomach.

To help hold the band in place, stomach tissue is folded over the band and stitched together.

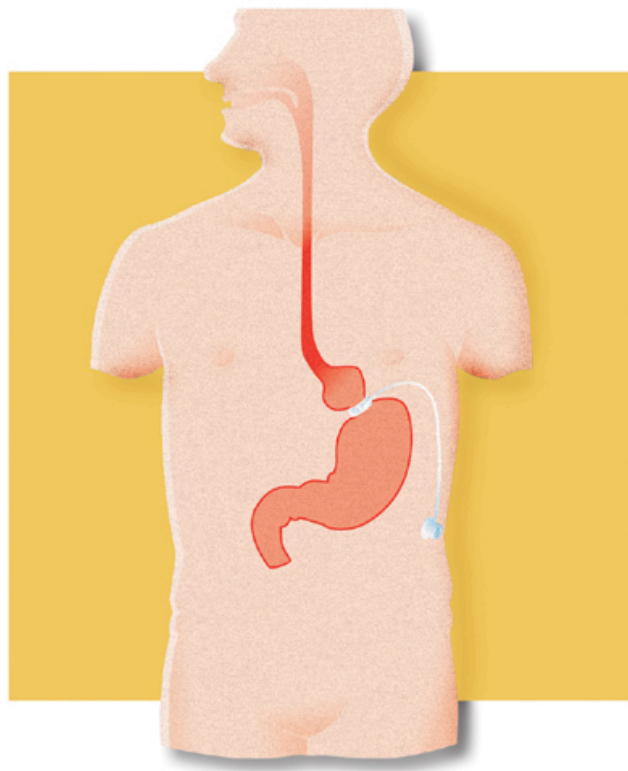


The small port which is attached to the band by a tiny tube, is placed just under your skin. This is where saline (sterile salt water) is injected later during adjustments.

The tools are removed and the incisions are closed.

Finally, numbing medication may be injected around the incisions so you'll be more comfortable when you wake up.

The following drawings show what the Band looks like and how it limits the size of your stomach.



After Gastric Banding Surgery

Once the anesthesia has worn off, you may feel left sided muscle soreness, as though you just did a lot of sit-ups. This is usually relieved with ordinary pain medication, however, stronger pain medication will be available to you if needed. The hospital staff will help you get out of bed and start moving as soon as possible. This is critically important and will help prevent blood clots, respiratory problems and back pain caused by staying in one position too long.

You may be given an X-ray. This is to confirm that the new stomach outlet (stoma) is open. Dr. Ellner may just ask you to sip some liquids instead. If you can drink liquids comfortably, the stoma is open. Once you can walk, urinate on your own, and drink comfortably, you can go home. Again, you must make sure you have someone to drive you.

Eating and drinking after the operation

After your surgery you will start with a liquid diet and move slowly toward eating solid food again. **It is very important to follow the eating and drinking instructions right from the start after the operation.** Your stomach needs time to heal and hold the band in place. It may take a month or more for this to happen. It is important, especially in the early weeks, not to stretch the small stomach pouch above the band. Vomiting can do this, so it is important NOT to vomit. Vomiting can lead to tearing of the stitches and stomach tissue slipping up through the band, which can be life-threatening and requires emergency surgery.

The first few days after the operation

You **MUST** stay in San Diego, within 30 minutes of the hospital, for at least 4 days after surgery. This is critically important, as this is the highest risk time for serious complications. Should you have a complication, every minute counts and you **MUST** get to Dr. Ellner immediately,

so make arrangements ahead of time to stay in a hotel or with friends in the area until your postoperative appointment is complete. This appointment will be made when you schedule your surgery.

Right after the operation you should drink 64 oz total of water, broth, jello, and most importantly, 60-80 grams of protein drinks, per day. All of these fluids count toward your 64oz total. But you should take only a small amount at a time. The idea is to avoid becoming nauseated and vomiting, since there is a high risk of band slippage right after surgery when vomiting occurs.

Recovery

You will be given specific instructions in your educational presentation, however, the most important issues to remember until then are:

- Walk frequently, at least every 2 hours, to avoid clots. It is extremely dangerous to let your body make you sit or sleep all day! Get out of the house/hotel and walk around the block. Go to the beach, mall, zoo, etc for exercise. Do NOT sit at home all day!
- You may shower normally the day after surgery. It is ok to get the incisions wet but do not **soak** in a tub or immerse completely in water of any kind.
- Expect your left sided incision to be the most sore – it is the only one that has an internal stitch in it that pulls on your muscles when you strain your abdomen. A heating pad works very well to settle the soreness, just as if you had a pulled muscle elsewhere in your body.

Your New Nutrition Plan

Some lifelong dietary habits are hard to change, but the effects of surgery and the post-operative liquid diet make it easier to make positive changes. You will be scheduled for an educational visit in the office several days to a week after

your surgery to help teach you how to manage your new band safely and effectively. Don't miss it!

Month One

Liquid Proteins ONLY

Your first meals after surgery will consist of liquid protein drinks, other liquids and vitamins carefully balanced to provide adequate nutrition for proper surgical healing, while still permitting weight loss. It is unlikely that you will feel hungry; most patients must make an effort to drink the 64 ounces. In addition to the protein drinks, you may have low sodium/heart healthy V8, diet Jello, bouillon cube soup and water. You need to ensure that you receive 60-80 grams of protein per day so the protein drinks are the most important item on your food list.

Choosing Protein Drinks

There are many protein drinks available online and in nutrition stores like GNC, Vitamin Shoppe, Henry's as well as Wal-Mart, some drugstores and discount warehouses like Costco and Sam's Club. Always check www.EllnerBariatric.com on the vitamin and protein page for up to date sources.

Everyone's tastes are different, so the office cannot tell you what drinks you will enjoy more than others. It is YOUR responsibility to have your protein drinks that you like before your surgery. This often requires extensive taste-testing, so start tasting several weeks before surgery!

You must read the labels carefully, as many drinks are not appropriate for Gastric Banding patients. Choose a protein drink that meets the following requirements:

- Less than 4g of sugar per serving
 - Less than 4 carbs per serving
 - At least 20 grams of protein per serving
 - If you must mix it with liquid, it must be mixed with WATER ONLY. NO mixing with juice, milk, fruit, yogurt or other food or drink!
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- The amount of protein varies for each drink, but you must meet your 60-80grams per day total
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- Spread your protein evenly throughout the day. Do not drink more than 15 grams in an hour or so, as this limits absorption.

Weeks 5 and 6

Continue your Protein Drinks and Add:

Transitional Soft-Foods – One meal per day

This diet does not require much chewing. Good foods to eat during this period include scrambled egg whites, lowfat lite yogurt, broth soups, tomato soup, split pea and lentil soup, nonfat cottage cheese and low fat refried beans.

Remember- the recommended daily intake of protein drinks alone is 60-80 grams. The food that you eat at this stage does not contribute substantially to your overall nutrition. You will receive more detailed instruction in the education after surgery, so it's important to re-read the slides from this presentation during this time.

When not eating, drink plenty of water. As noted in the slide presentation, do not drink during a meal or within one hour

after. The reason for this is that fluids taken during the meal will flush more food through, and keep you from feeling full and satisfied.

Week 7 Onward

Continue your Protein Drinks and Add:

Regular High Protein Foods – One meal per day

When you can eat solid foods without problems, you will need to pay close attention to your diet. Liquids will pass through the reduced stomach pouch quickly and will not make you feel as full. You will be taught in the post-op education how to know when and how much to eat.

You should avoid drinks such as fruit juice, milk, yogurt drinks, and ALL soda, tea (herbal is okay) and coffee from this point on.

Softer foods will also pass through relatively quickly, which is why the transition to solid MEAT protein is so important. Meat-based protein found in chicken, fish, red meat, etc. will keep you satisfied longer and prevent you from eating too much food in one sitting.

Too much food or big chunks of food can block the stomach pouch outlet. You can avoid this problem by chewing food well taking small bites. Meat protein can get stuck if you take too large of a bite despite chewing the food well. The size of bite and amount of food that you feel good with will be controlled by how tight your band is – this is a decision that you will make with Dr Ellner as time passes.

Details on how and when to eat are taught post-op.

Lean meats, vegetables, and a small amount of fruit should become your dietary mainstays. Fats, concentrated sugars, and snacking are to be avoided. Meals are necessarily small and food should be well chewed. If solid foods cause nausea and vomiting, go back to the liquid diet for 48 hours, then slowly advance back to soft mushy, then regular food.

Here are some additional food tips:

- Bake, broil, or BBQ meats - do not fry foods!!! Avoid foods that are greasy or fried.
- Read labels. Some foods are surprisingly high in sugar and fat; for example, baked beans, BBQ sauce, salad dressings, mayonnaise, butter and spaghetti sauce.
- Spice to taste. Salsa is a great taste to add to eggs, salad, fish and chicken.
- Use nonfat dressings and spreads. Use Equal or Sweet & Low. Avoid sugar.

Lean Protein Sources

Remember to eat enough protein. Our bodies need the amino acids from protein foods to protect vital muscle structure. When you lose muscle, you gain fat, so we focus on protecting and building muscle through healthy feeding and appropriate exercise.

Turkey, chicken, or beef - purchase 97% lean meat

- Baked, broiled, or BBQ skinless chicken, white turkey meat, fish
- Ground or chopped chicken or turkey (white meat) for salads (use nonfat dressing)
- Lean deli meats (turkey, chicken)
- Water packed tuna (1/4 cup = 1 oz meat)
- Egg whites or egg substitute. (Yolk has all the cholesterol and fat, whites are pure protein)
- Nonfat Lite yogurt
- Kidney beans, navy beans, lima beans, pinto beans

- Nonfat cottage cheese
- Fish baked or broiled
- Lowfat mozzarella string cheese

Foods to AVOID during the weight loss period

- Nuts and seeds (due to high fat content)
- Protein Bars
- Cereals (breakfast flakes, oatmeal, cream of wheat)
- Milk of any kind, including soy and nut milk, cream
- Butter, mayonnaise (substitute with nonfat)
- Potatoes and chips
- High fat cheeses (except low fat mozzarella, as above)
- Peanut butter
- Cream soups and cream based sauces
- Trail mix / dried fruit
- Ice cream, sherbert and sorbet
- Cookies, cakes, popcorn, pies, muffins, etc
- Crackers
- Breads
- BBQ beans and sauce
- Granola

Important Rules

1. Eat only when you start to feel low blood sugar. Do not eat when you don't feel low blood sugar.
2. Always eat your protein first! Each meal should be at least 75% lean protein!
3. Eat small bites, eat slowly, chew thoroughly.
4. Eat only until your low blood sugar feeling goes away! It is counter-productive AND dangerous to continue to eat until you feel physically full and uncomfortable when you have a band in place!

5. Do not drink while you are eating.

6. Exercise is critical. You must follow the guidelines in the slide presentation. Weight lost by dieting only inevitably returns due to loss of muscle!

Why the rules are important and how to make them work

Rule#1. Eat only when you start to feel low blood sugar. This will be 1-2 times per day, depending on how much protein you drink during the day. The Gastric Banding creates a small stomach pouch that can hold only about half a cup (4-5 ounces) of food. If you try to eat more than this at one time you may become nauseated and vomit. If you routinely eat too much, the small stomach pouch may stretch, losing the effect of the surgery. Frequent vomiting can also cause complications such as stomach slippage. You need to learn how much your stomach pouch can hold comfortably and then not exceed this amount.

Rule#2. Always eat your protein first. Each meal should contain at least 75% protein. This is the most important part of your meal and since you don't have much room in your stomach, you must be sure to get enough in each meal. Additionally, protein is what gives us a sense of fullness and satisfaction, so it's important to put it into the system first.

Rule#3. Cut your meat into small bites. Eat slowly and chew thoroughly. Food can pass through the new stoma only if it has been ground into very small pieces.

Rule#4. Stop eating when your low blood sugar feeling has gone away. Pay close attention to how you feel before and during your meal. It takes time for you to become aware of this signal. If you hurry your meal, you may eat more than you need. This can lead to nausea and vomiting. Take time over your meal. You must learn to recognize when your low

blood sugar feeling comes and goes. When it goes away, stop eating at once!

Rule#5. Do not drink within 30 minutes of eating. The band can work well only if you eat solid food. If you drink with meals, the food flushes out of the stomach with the liquid and you will feel hungry again.

Rule#6. Avoid fibrous foods as your band gets tighter. Food such as asparagus or cheap cuts of red meat that contain many gristle fibers can block the stoma. Be sure you know how tight your band feels before deciding to eat these foods.

Rule#7. Exercise according to the guidelines. This rule is very important! Since physical exercise consumes energy and burns calories, it is important to successful weight loss. It is exercise that builds the muscle that keeps the weight off. People who diet but don't exercise regain lost weight. The more weight you lose, the easier exercise will become. Review the slide presentation with the details of your exercise program until you know it by heart. Your needs will change over time, so be sure that you are following the guidelines at all times.

Exercise

Establishing a routine for exercise is sometimes the most daunting element for our patients. Many people who have weight loss surgery have seldom felt comfortable exercising, due to pain, fatigue, self-consciousness, lack of positive results...but the fact is that now that you have had surgery, exercise is not only essential to protect your muscles from getting broken down, but it becomes a lot more fun! The pain in the joints disintegrates, energy skyrockets, the scale shows progress every week (our patients are the ones who see results faster than everyone else in the gym!) so self-confidence gets a real boost and suddenly people feel down and fatigued if they DON'T exercise.

It is important to combine aerobic type exercise (that is anything that gets your heart rate up to your personal goal) with resistance training (lifting weights). The details are in the slide presentation.

Aerobic exercise burns more fat while you're doing the exercise, but resistance training increases your metabolism more overall, both while you are doing the aerobic part and for hours after you have stopped exercising. **In plain terms, lifting light weights in addition to your aerobic workout makes you burn more calories during your aerobic workout and it keeps your body burning calories long after you have stopped exercising.**

Some patients do really well with the help of a personal trainer. Getting a personal trainer, even on a temporary basis while you are losing weight, will provide an environment in which you can be safe and productive. Try it for just a few months and then see what you think!

Trainers who are physical therapists as well have an understanding of how to exercise around prior injuries and painful joints, while at the same time strengthening weak areas. They also have a keen ability to find the little muscles that we often neglect if left to our own devices, like the back (which sometimes starts to hurt after weight loss if it hasn't stayed in shape during weight loss) and the triceps (the area between the shoulder and elbow that sags down when you raise your arm).

Many patients have said that second to the surgery itself, getting a personal trainer was the best thing they could have done with their money. Trainers make exercise safe, more effective and more fun, and they keep us accountable! Many trainers will even come to your home if you don't have a gym near your house.

If cost is an issue, many at-home trainers will design a home program for you, check in with you by email, and visit you only once per month, adapting your programs for your needs and desired results as time goes by. This is less costly and is a better option for most people than going it alone.

Medications

The general rule is that you are cleared to take virtually all medications but you must be careful of the size of all medication. If you require your band to be quite tight, your medications might need to be ground into a powder or small pieces. This is particularly important right after a band fill.

Vitamin and Mineral Supplements

You are required to take:

Chewable or Liquid high potency multivitamin (Centrum)

B-Complex capsule or liquid, depending on band tightness

Calcium 1200-1800mg per day, depending on your labs

Iron and other supplements may be added if your labs show that you need them.

Your First Adjustment

Most patients need their first adjustment around the 3 month mark, as you will continue to enjoy weight loss with the empty band in place for around 90 days after surgery. It is important to always drink only fluids (as above) for 48 hours after EVERY adjustment!

One of its most attractive aspects is that the band can be adjusted depending on what you need. This feature allows you and Dr. Ellner to find just the right level of restriction for you, depending on your weight loss and eating patterns.

When first placing the band, Dr. Ellner will leave the band empty or only partially inflated. This lets you get acquainted with the band during the first few weeks after surgery. It also allows healing to occur around the new band site.

These first few weeks are a critical time. You must avoid vomiting. You also need to avoid putting pressure on your new small stomach above the band. To determine how ready you are for a band adjustment, Dr. Ellner will consider:

1. Your weight loss
2. How long after meal before you get hungry
3. Your exercise routine
4. How much fluid is already in your band
5. What type of food you are eating

The use of dense protein is extremely important here. Not all proteins are the same. Soft proteins from cottage cheese, yogurt, and refried beans; although important during your soft-food transition phase; will not keep you satisfied as long and will require a much tighter band. The determination of whether you need an adjustment requires that your protein source is as dense as possible. For instance, the ability to eat 10 ounces of cottage cheese does NOT mean that you need an adjustment. Soft proteins will slide through even the tightest adjusted bands.

Being able to adjust the band gives you and Dr. Ellner control. If the band is too tight, she can “loosen” it by taking out some of the fluid. If the band is too loose, she can

tighten it by adding saline to the port. This port is located just under your skin. This is done with a special fine needle. You may feel a pricking sensation when this is done. The feeling is similar to when you give blood. Adjustments are done either in the hospital or in the office. We may have to use fluoroscopy to assist in locating the access port, or to guide the needle into the port and view inserting the needle. It may also be used after the band has been adjusted to evaluate your pouch size and stoma size.

To get the best results, you will likely need several adjustments. Each one will range from 0.5cc to 2cc. The exact amount of fluid required to make the stoma the right size is unique for each person. An ideal “fill” should be just tight enough to let you gradually lose weight. That means you should still be able to eat enough to get the nutrients that you need while still reducing the overall amount you can eat.

The Gastric Banding System is meant to offer you a way to obtain steady and safe weight loss. Don't be in a hurry to have an adjustment before you're ready. To work, the band needs your participation and cooperation. Your success will depend on you and on your partnership with Dr. Ellner, and your full compliance with the program.

Support Group Meetings

Information obtained through regular attendance at support group meetings will help you with post-operative adjustments. Patients who attend support group meetings on a regular basis seem to lose weight more successfully than those who do not. No better opportunity exists to discuss the surgical experience with other patients than at the support group meetings, and the multi-disciplinary educational format offers a variety of topics to guide you toward healthy lifestyle. Check the Calendar of Events on www.ellnerbariatric.com and attend monthly meetings.

Keeping in Touch

Even years after surgery we need to keep in contact with you on a regular, annual basis. Important blood testing needs to be performed on a yearly basis, and your regular doctor will not know what to order, or how to manage your care based on the results. By maintaining contact we can offer you the latest information in the treatment of obesity as well as counsel you in using your surgery to the greatest benefit. If you move out of the area and cannot return to Dr. Ellner's office for visits, you **MUST** locate another bariatric surgeon to manage your care. This is for your health and safety.

When to call the office: 619-286-7866

- Fever above 101.5 or shaking chills
- Swelling, redness or pain in one or both of your legs
- Sudden shortness of breath or chest pain
- Nausea or vomiting
- Severe pain in your belly
- Pain, swelling or fluid leaking from your cuts

We are always available to answer questions, address your concerns, and provide additional information.

Congratulations on your new surgery!

Dr. Ellner and Staff