

Patient Management after LAP-BAND® Placement

Severe obesity is a chronic disease requiring continuing care. Optimal outcomes of laparoscopic adjustable gastric banding using the LAP-BAND® depend on accurate placement of the band and excellent post placement care, which requires a long-term commitment from both the patient and the bariatric surgical team.

Post LAP-BAND® placement care is mandatory, and is continued for as long as the LAP-BAND® remains in the patient. For the patient, this is a lifelong commitment.

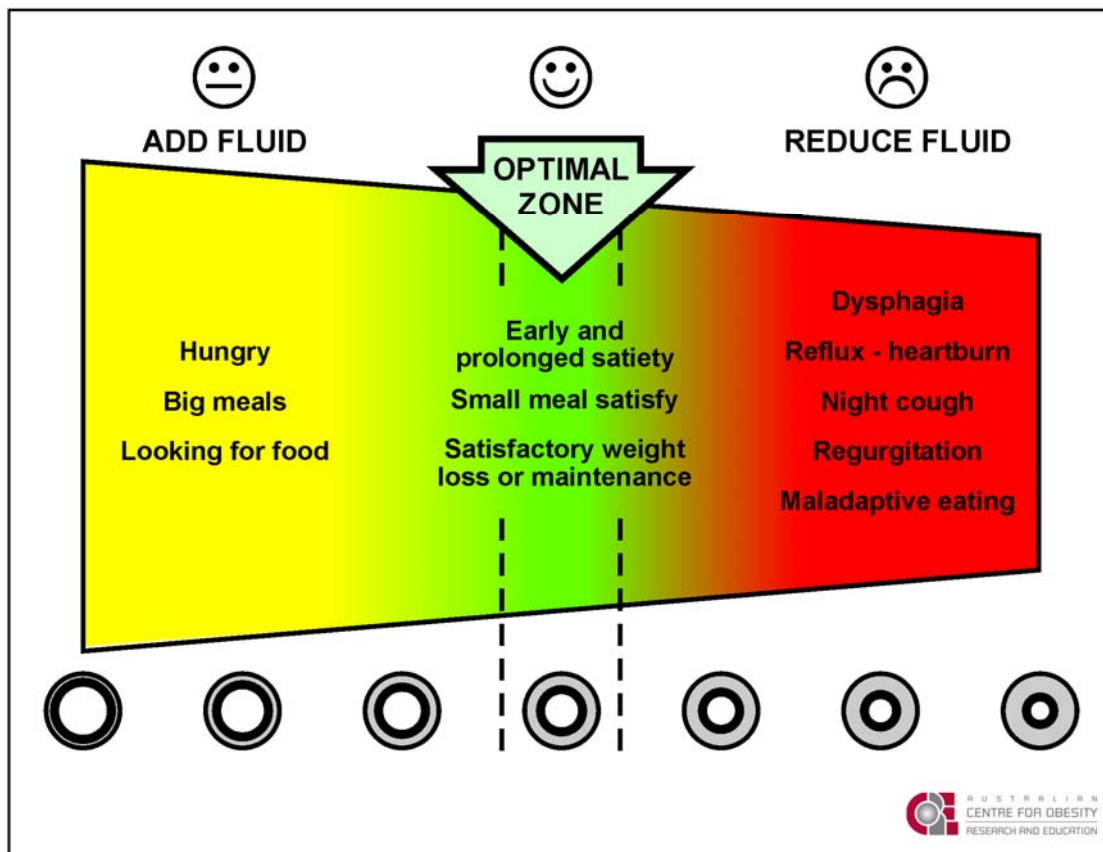
Adjusting the band

Adjustability is a key feature of the LAP-BAND® system, and knowing when and how much to adjust requires careful judgment. A properly placed and adjusted band produces prolonged satiety after a small meal, facilitating a major reduction in dietary intake leading to weight loss. There are two methods of approaching the art of adjustment: office adjustments and adjustment guided by x-ray. We prefer the former.

- The office adjustment

Office adjustment is simple, quick, and effective. This method involves making adjustment decisions on the basis of weight loss and the symptoms of the patient. The entire procedure usually takes only a few minutes and is done following discussion with the patient during an appointment. After standard skin preparation, a non-coring needle (Huber tipped needle) is passed through the skin into the port. There is little discomfort. All fluid is aspirated to check constancy of volume of fluid. The existing fluid plus any planned additional fluid is then instilled, and the needle is withdrawn.

Figure 1 shows in a diagrammatic way the general principles of adjustment where the aim is to have the band set in the “Green Zone”.



The principles of adjustment include:

- The level of adjustment should be sufficient to achieve a prolonged sensation of satiety in the patient.
- Weight loss should be steady and progressive, with the early rate of weight loss ideally being 0.5 kg but < 1 kg/week.
- Adjustment should induce no restrictive symptoms, ie, heartburn, vomiting, discomfort, excessive difficulty with eating a normal range of food.
- Loss of excess weight should be planned to occur gently over a period of 18 months to 3 years, depending on initial weight.

Bands have different adjustment characteristics

All LAP-BAND® systems are adjusted by adding or removing sterile saline (salty water) to or from the band.

The 10 cm LAP-BAND® is adjusted using small increments usually less than 0.5 ml and as little as 0.2 ml can make a significant difference in effect. The average volume to achieve the green zone effect for a 10 cm band is around 2.3 ml, but can vary greatly from almost nothing up to 4.0 ml.

The VG Lap-Band is quite different requiring 3.5 to 10.5 ml within the band to achieve the desired effect. No doubt developments in band technology will require further refinements to the adjustment process as newer bands become available.

Adjustability provides flexibility

The band can and should be adjusted to cope with the many situations that may present. The band may need adjustment for remote travel, incidental illness, surgical procedures, and during pregnancy.

The band also needs reassessment from time to time as fluid can very slowly diffuse from within the band. This leads to a reduction in the efficacy of the band and simply topping it up to the effective level overcomes this problem.

Diet and physical activity are important following Lap-Band placement

Healthy food choices, increased activity and exercise, and the behavioral changes necessary to achieve these are essential elements of all weight loss programs. The LAP-BAND® program is no exception.

Each person who has a Lap-Band needs to adjust their eating behavior and choice of foods. Specific individual advice is often needed but some general principles regarding diet follow:

Immediately following surgery an exclusively liquid diet is advised to allow healing without the stress and risk of solid food sticking and obstructing the band. A transition from a liquid diet through sloppy food to food of a normal consistency takes 4-5 weeks.

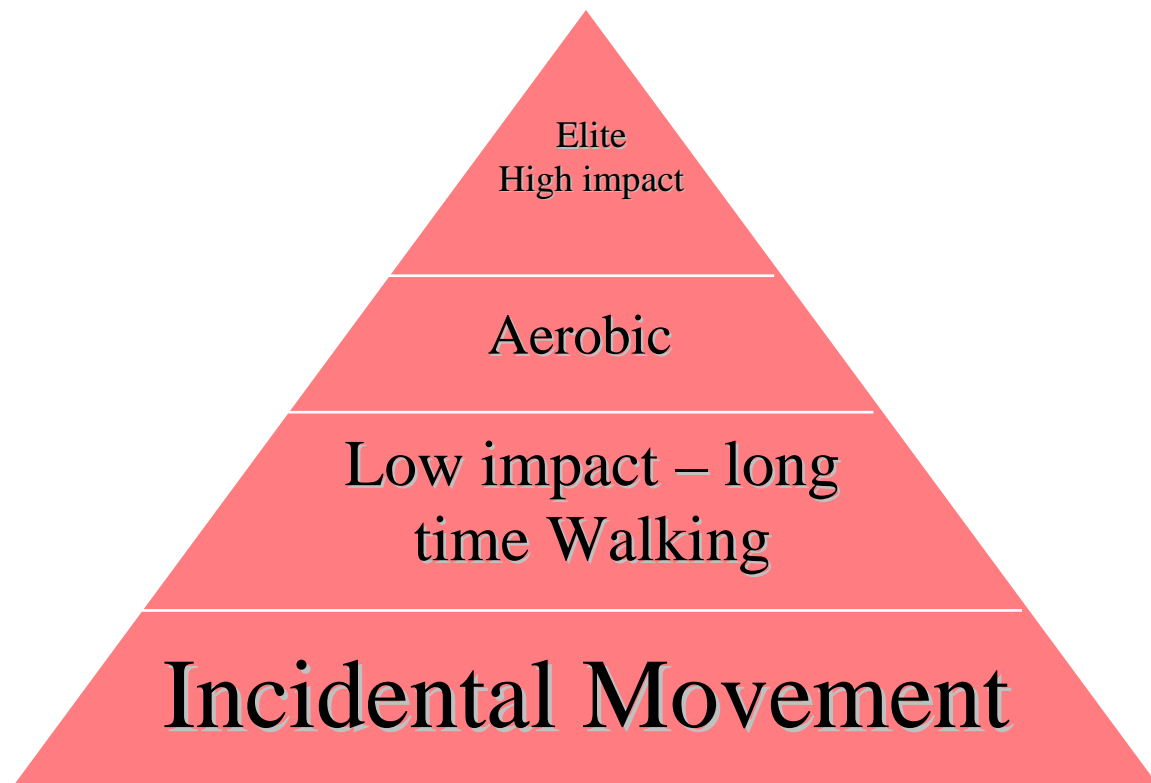
Thereafter:

- Eat 3 small meals per day. If hungry between meals eat healthy “snacks” such as fruit, but do not graze. Delay breakfast if you find an early breakfast difficult.
- Eat only good, solid food.* There is no room for empty or poor quality food.
- Eat slowly, chew well and stop when comfortable. The band is not there to STOP you eating, but to help you control hunger and appetite.
- Avoid liquids with meals.
- All liquids should be 0 calorie.

* “Good” refers to foods that are high in protein or complex carbohydrates; “solid” means not liquid. The food should be of sufficient texture to pass only slowly through the banded area.

Physical Activity is crucial in assisting and maintaining both weight loss and health following surgery.

- Exercise for at least 30 minutes per day and a total of at least 200 minutes a week so that if a day is missed then the time should be made up.
- Be active throughout each day.



Physical activity need not be daunting and we are not trying to create elite athletes. The physical activity pyramid is similar to the food pyramid we advise more simple incidental movements as part of every day life, followed by low impact movement etc. There needs to be a gradual progression to higher levels of physical activity without neglecting the base of the pyramid.

Assessment of metabolic and nutritional status following surgery

Optimal follow-up also requires monitoring of illness related to obesity and metabolic and nutritional status. It is vital that weight loss is safe and that any nutritional problems are detected and treated. We advise all patients to take a daily multivitamin supplement indefinitely and to have blood tests every year to monitor health and nutrition. It is common for patients losing considerable weight to need changes to their regular medication that they may be taking for obesity related or other illness. These changes are made by the patient's general practitioner, and communication and collaboration between the LAP-BAND® follow up team and the patient's doctor is important for optimal care.

Complications

All surgery can be followed by complications immediately following surgery and in the longer term. Fortunately the immediate problems are few, but longer term problems of band slippage (a change in position of the band on the stomach) or leaks in the band system are more common. These problems need to be identified and corrected. It is therefore important that patients report any change in symptoms to their LAP-BAND® doctor. Problems such as excessive hunger, weight gain and lack of restriction indicate that the band is not functioning well and the band needs to be checked. It is sometimes embarrassing to have to attend the surgical clinic when weight has increased, but it is at

this time a visit is most important. Other symptoms including excessive vomiting, heartburn, abdominal pain, night cough, recurrent chest infections or wheeze should be reported to your LAP-BAND® surgeon as soon as possible and if the condition is being managed by another doctor encourage this doctor to communicate with your surgeon.