



*Bariatric Surgery @ AIIMS-Towards a Healthier Nation*

*...Newsletter*

Vol 3 Jan 2014

## *Life after Weight Loss Surgery*

Dear Friends,

Weight loss surgery is a defining moment in a person's life. It demands a radical change in eating habits coupled with need for regular exercise and follow-up. There is state of euphoria in the initial postoperative period followed by a period of confusion when one may find it difficult to follow the dietary instructions. This period may be complicated by nausea and vomiting. The patients are unable to take the required amount of fluids as well as the calories prescribed by the dietitian. However this period is fortunately short and with proper guidance one can quickly adapt to the new diet. Adaptation is made easier if proper preoperative nutritional counseling has been done and patient has followed the preoperative low calorie diet. It is important to understand all aspects before undertaking surgery. Dietary adaptation is different in different patients. Some patients are able to tolerate solids by 6 weeks while others are able to ingest the solids only by 3 months. It is important that the patients understand this variation and don't try to force feed themselves. One should chew well and eat at a slow pace taking about half an hour in finishing the meal. Liquids should not be taken about 45 minutes before and after each meal. However one must take enough non-calorie or low calorie fluids between meals. Don't drink while eating as it may cause vomiting and also stretch the stomach pouch or sleeve. Fruit juices, sweetened sodas and alcohol are absolute no-no.

The importance of exercise should not be ignored. Exercise helps in preserving muscle mass as well improves bone health. Patients want to know about when to start exercise and how to proceed. Again this varies from patient to patient. In general, it is a good idea to start with a daily walk; lasting for about 30 minutes and then increase it gradually to achieve about 1-hour of light physical activity for the first month. Hair loss is a common problem after weight loss surgery. The most reassuring aspect about hair loss is that it is temporary. We have included a separate section on hair loss in this newsletter considering the anxiety it induces among patients. Another important concern of some patients is loose skin and flabby tummy after weight loss. Regular physical activity and weight resistance training could help in minimizing the impact of weight loss on skin. However, this can be cosmetically disfiguring in patients with massive rapid weight loss. Plastic surgery in form of abdominoplasty (tummy tuck) and other body contouring procedures can help in such cases. At AIIMS we have a team of plastic surgeons who perform these procedures with great results. We have included a write up on this issue from them in subsequent sections.

The purpose of bariatric surgery is not only adequate weight loss but to provide an opportunity for the patient to lead a better quality of life, free of limitations imposed by excess fat and free of obesity related diseases. In my experience this surgery does fulfill most of what it promises. None of our patients have expressed regret at having the surgery done so far including even those who had serious complications like leak initially. Bariatric surgery provides a person with a long window during which the changed lifestyle and new eating habits should become a part of his/her life forever. Therein lies the importance of a regular follow-up and we can help only if the operated patients come to see us on the scheduled appointments. That alone will ensure the long term success of bariatric surgery.

Wishing you all a happy and healthy new year. Keep Slim!!

Dr Sandeep Aggarwal  
Professor, Department of Surgical Disciplines  
AIIMS

# GLIMPSES



Dr Ashutosh Kaul from USA at 1st Workshop 2008



Dr Akshat Wahal presenting his research paper at IFSO meeting, Istanbul 2013



Dr Martin Fried from Czech Republic



Dr Mal Fobi From USA



Dr Sandeep with Dr Laurent Layani at John Flynn Hospital, Australia



Second Support Group Meeting



Dr Layani from Australia at AIIMS



Robotic Bypass at AIIMS

## Prof. M C Misra takes over as Director AIIMS

We feel proud that Prof M C Misra has taken over as the Director of AIIMS. He has been closely associated with the bariatric surgery program at AIIMS. He has been instrumental in helping to start the bariatric surgery at AIIMS, the first public funded hospital in the country to start a well organized service. He is a source of constant motivation and support. His guidance has been a key factor towards the success of the program. We are confident that the Department will continue to receive his focused attention and encouragement for opening new vistas of knowledge and patient care that will help us in achieving global standards of care in bariatric surgery.



## Bariatric Surgery Clinic

A dedicated bariatric surgery clinic has started functioning from start of this year. The clinic will go a long way in fulfilling various needs of the obese patients. The need for specialised clinic hours for obese patients has been a long felt need since these patients require a longer time with the doctor in order to counsel them adequately regarding the various aspects of bariatric surgery. Patients who want to get operated and require counseling can meet and get their doubts cleared. Moreover patients who have been operated previously can have a more organized follow-up. Bariatric Surgery clinic will offer a lot of advantages to our patients.

One..... patients need not wait in long, never ending queues to meet up with their doctor. Since our patients need at least two to three appointments with their doctor before the surgery, this has definitely proved to be a blessing in disguise for them.

Second.....patients who want to get operated will definitely have a lot of doubts regarding the surgery even if they have been counselled in detail by their doctor. Nothing works better than a fellow obese patient, who underwent bariatric surgery previously telling them regarding the benefits he/she has gained due to the surgery. The bariatric surgery clinic provides this opportunity for pre-operative patients to interact with operated patients who come for follow up visits and have their fears addressed.

Three...our operated patients who come for their follow up visits get more time to discuss their various problems with the doctor. We have the services of our team of dieticians too in our clinic so that diet counseling can be done at the same time.

We conduct the bariatric surgery clinic every Thursday at 2 pm in room no.10, 5th floor surgery OPD. We sincerely request all our patients to make full use of this opportunity provided to them and make this clinic initiative a huge success... :)

## Winter Should Not Put a Freeze on Your Exercise

With the onset of winter and as the weather becomes chilly, we tend to skip going out for our morning walk. There's no need to be scared of the winter. All you need is some extra preparation and an open mind. There are ways to remain active in all sorts of weather. Continuing with your daily exercise program and walk throughout the colder months makes it more likely that you'll be ready to emerge with a lean healthy body that's ready to take flight in the warm spring air! To stay active outdoors when the temperatures take a dip, you need to dress in layers that can easily be removed and replaced as needed. Don't forget to include cap to cover your head and ears and gloves. Make sure you drink plenty of fluids, even in cold weather. Exercise in clearly lit areas with a clear visibility.

If the weather is too harsh, move your activity indoors. There are many exercise DVDs available in local markets or with fitness centres that can show you proper form of exercising while keeping you engaged. Consider buying a treadmill or stationery bike. Take classes at the local gym or look for a membership deals. Take your walks into the local parks with other regular morning walkers. Purchase some light weights and use them during commercial breaks while watching your favourite television shows or while doing a seated exercise routine. Even playing some indoor games can get your heart pumping.

Get creative!

Bariatric surgery is done for any patient who is morbidly obese. This is done to reduce the problems associated with obesity. This should not be considered as aesthetic surgery as indications are well defined. Problems faced post surgery relates mostly to the presence of skin folds. These folds pose a different problem all together, and further surgery for this is not warranted immediately, rather any obese patient who requires aesthetic surgery should be postponed until the effects of Bariatric surgery have been utilized. Patients undergoing the Bariatric surgery experience rapid and massive weight loss initially that usually slows down around 15-18 months post surgery.

The most common consultation that the patient seeks is for reduction of additional pannus (fat). Some patients have excessive skin redundancy, which makes it very difficult for them to do any physical exercise and the movements get restricted. Moreover the extra skin causes a myriad of other problems like intertrigo, skin ulceration, and infection. Usual sites of excess skin are the abdomen, breasts and extremities. There is also difficulty in maintaining personal hygiene and it may also interfere with sexual intercourse.

The surgery which is done to correct this is also known as body contouring surgery, which includes reduction of redundant skin, fatty rolls and tightening of skin in abdomen, chest, back, arms and thighs. Thus, it is a wonderful adjunct to Bariatric surgery and thus aids in fulfilling the ultimate aim of bariatric surgery.

Challenges include anesthetic challenges as it is done under anesthesia, poor vascularity (blood flow) of skin folds and associated medical comorbidities. Multiple sittings may be required to get the desired results. Abdominoplasty is one such procedure to get rid of the abdominal fat, but again, there is a word of caution that it is a body contouring procedure and not a weight reducing procedure.

The bottom line is that any weight reducing surgery or Bariatric surgery may require aesthetic surgery at a later date. For this reason its prudent to consult a plastic surgeon after bariatric surgery.

For further queries related to this, contact Dr Maneesh Sigal, Additional Professor and Consultant Plastic Surgeon All India Institute of Medical Sciences, email id drmaneesh@gmail.com

Hair Loss After Bariatric Surgery

Hair loss is a common side effect seen in patients undergoing bariatric surgery. We have heard from others or read in newspapers or web blogs of post gastric bypass patients reliving their horror stories of seeing their once lustrous and shiny hair losing its shininess and thinning out, or even in some extreme cases clumps of hair falling out. If it is so then how do these very patients after a certain period of time regain their once beautiful hair again?? The answer to this question lies in the basic mechanism of action of the bariatric surgery. We already know that bariatric surgery causes weight loss either by decreasing the intake or absorption of food or by decreasing harmful hormone levels in our body. This leads to a period of stress on our body where our body's nutrient stores are severely depleted. So the remaining nutrients are diverted to more essential organs like the brain and heart rather than skin or hair. This leads to arrest in the growth of hair leading to loss of shininess and weakening of hair roots leading to hair fall.

But the most important feature is this period of hair loss is only temporary and once the body readjusts its normal physiology after the initial period of stress the hair growth continues. Though the amount of hair loss varies between patients from mild to severe hair loss, most completely regain their normal hair by a year after the surgery.

Can this hair loss be completely prevented?

No, but the amount of hair loss can be reduced significantly by adhering to your doctor's dietary prescription because it contains the necessary amount of nutrients to overcome this period of stress.

You should also make sure you take vitamin and mineral supplements as advised by your doctor .....and rest assured that after a year when you see in the mirror you will see a more slimmer, confident and a more beautiful "YOU"

Media Coverage

NBT नवभारत टाइम्स
मोटापे पर अटैक करती है बैरिएट्रिक सर्जरी
पिछले सालों में बैरिएट्रिक सर्जरी से मोटापा रोकने में मिली है काफी मदद
रखी में लैटिन डॉमिन, जिससे खतर बढ़ता है और गैल्लेक्ट-1 ग्रामिन जिससे इंसुलिन रूढ़ित होता है, की रकबा बढ़ गई। इससे पाचन प्रणाली में बदलाव आता है और रूढ़ित हो जाता है।

हिन्दुस्तान
कम वजन में भी कारगर बैरिएट्रिक सर्जरी
अई दिनेश | मुकुल शर्मा
एस ने किया अध्ययन
कम वजन में भी कारगर बैरिएट्रिक सर्जरी
अई दिनेश | मुकुल शर्मा
एस ने किया अध्ययन

# CGHS Approves Bariatric Surgery

THE TIMES OF INDIA, NEW DELHI  
THURSDAY, DECEMBER 19, 2013

TIMES

## Weight-loss surgery free for babus

Durgesh Nandan Jha | TNN

New Delhi: The growing demand for weight-loss surgeries from sarkari babus has forced the Centre to include the procedure, long considered a lifestyle choice, in the central government health scheme (CGHS) list. It will now be available free of cost to those covered under the government scheme at select hospitals.

According to the Union health ministry, guidelines of the US National Institute of Health will be used for select candidates for the procedure. The government has fixed a package rate of Rs 2.25 lakh per person for such a surgery.

In India, an estimated 200 million people suffer from weight-related issues. According to Dr Praveen Bhatia, executive member of Obesity Surgery Society of India, close to 2,000 persons undergo weight loss surgery every year. Bariatric surgery involves stapling of a portion of the stomach to reduce a person's appetite.

"The decision has been taken in view of the increasing

### SARKAR'S GUIDELINES

**Who makes the cut** | Healthy individuals with BMI 40 or above; in case of patients with obesity related co-morbidity, BMI has to be 35 or above

**Exclusion criteria** | Reversible endocrine or other disorders that can cause obesity; current drug or alcohol abuse; severe psychiatric illness; anyone who lacks comprehensive understanding of risks and benefits

Surgery rate approved by govt | ₹2.25 lakh

number of requests for bariatric surgery, commonly known as weight-loss surgery," said a senior health ministry official. He said that till date there are no guidelines for consideration of weight-loss surgery under the CGHS scheme and the requests were considered on merits of each case.

The new guidelines provide for reimbursement of surgery charges to patients who have BMI more than or equal to 40 kg/m<sup>2</sup>. If the person has



obesity related co-morbidities, for example hypertension, cardio-vascular disease and diabetes, then surgery can be considered even if the BMI is more than or equal to 35 kg/m<sup>2</sup>.

The BMI of a healthy individual is anywhere between 18-23 kg/m<sup>2</sup>, said Dr Deep Goel, director, department of minimal access, bariatric surgery at B L Kapoor Hospital. "The government seems to have finally realised that weight-loss surgery is not a

mere cosmetic procedure. It is a life-saver for very obese patients," said Dr Pradeep Chowbey, director, Max Institute of minimal access, metabolic and bariatric surgery.

"The decision will help those unable to afford the procedure on their own. Also, it will force private insurance companies to re-think their policy against reimbursement for weight loss surgery," Dr Bhatia, who chairs the bariatric surgery unit at Sir Ganga Ram hospital, added.

Experts, however, warn that people should not rush to undergo the surgery just because it will be reimbursed or they want to look better. "We get many patients who seek to undergo the procedure to look better or youngsters seeking to get married. One needs to think over the consequences of surgery and diet restrictions before deciding to undergo the same. Also, a wrong surgery conducted by an inexperienced doctor can put the patient at risk for leak and death," said another senior doctor.

hindustantimes

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HT Correspondent, Hindustan Times

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### AIIMS' first robot-assisted weight-loss surgery

Two years after a robot was used for the first time to perform a complex surgery in its urology department, the All India Institute of Medical Sciences (AIIMS) has performed its first robot-assisted bariatric (weight-loss) surgery.

The gastric bypass procedure, wherein only a small pouch is left functional out of the entire stomach, was performed last month on Krishna Devi (name changed), who had a body mass index (BMI) of 40kg per square metre. A person with a BMI of 30 and above is considered morbidly obese.

Dr Sandeep Aggarwal, bariatric surgeon and additional professor (surgery) at AIIMS, Dr Rajeev Kumar, additional professor (urology) and a team of six doctors conducted the surgery on April 16 that was challenging not only because of the extra kilos, but also because the patient was diabetic.

After several failed attempts at losing weight non-surgically, Devi decided to go in for surgery. "I have already lost about 10 kg since the surgery and I'm feeling better," she said. Doctors are hoping the surgery will help control her diabetes as well.

Gastric bypass is a popular weight-loss procedure and is commonly done laparoscopically through small cuts.

"The use of robot gives many advantages including 3D vision and better control over instruments. Most importantly, it allows for precise suturing of the stomach pouch and intestine and reduces serious complications like leaks," said Aggarwal.

<http://www.hindustantimes.com/StoryPage/Print/862229.aspx?s=n>

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### Case Study - 1



37-year-old female weighed 220 kg during registration for bariatric surgery. She was super-obese with BMI of 82.8. Her mobility was severely restricted. She also had hypertension and severe obstructive sleep apnea (OSA). She underwent uneventful Laparoscopic Sleeve Gastrectomy on 7/12/2009. She did well after surgery. She has lost 80 kg at the end of 3 years after surgery. Her OSA and hypertension has improved. She is doing well now. She was confined to her house before surgery. Now she can move around the city on her own.

### Case Study - 2

41-year-old gentleman weighed 152 kg when he came to meet us initially. His BMI was 66. He also had severe Obstructive Sleep Apnea (OSA). He used to become breathless after walking for just 500 metres. He required the assistance of a breathing machine (CPAP) at night. He underwent Laparoscopic Sleeve Gastrectomy on 14/5/2012. He has done well. He weighs 85 kg now. His OSA has improved significantly. He has been able to stop the use of breathing machine (CPAP) shortly after the surgery. His life has changed dramatically after surgery. He has become superbly active and plays tennis regularly.



# ANMS Bariatric Surgery Programme at a Glance

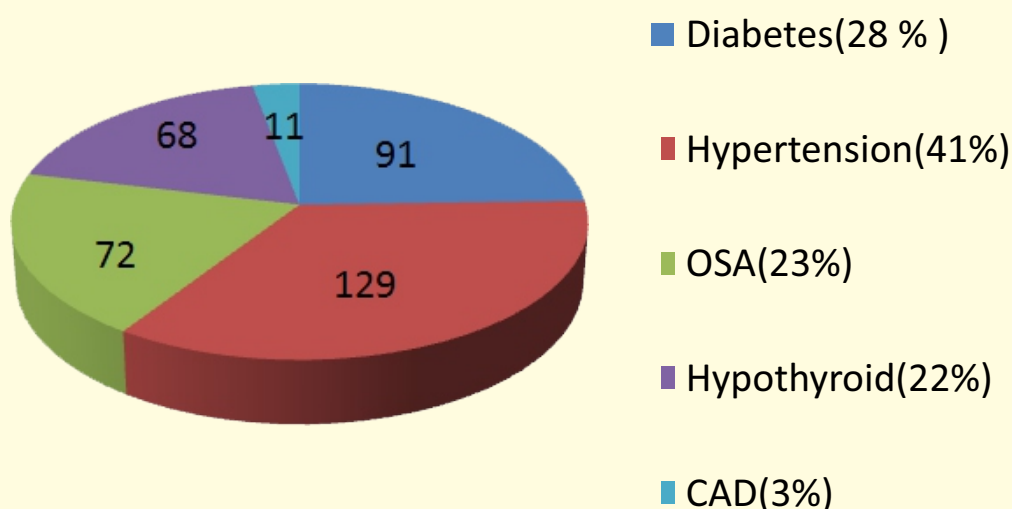
## Our selection criteria for bariatric surgery are:-

- Patients with BMI of 40 or more with or without co morbidities
- Patients with a BMI of above 35 with one or more co morbidities with multiple failed attempts at non operative weight loss
- We also offer surgery to diabetic obese patients between BMI 30-35 (Under research protocols)

## Bariatric Data at a Glance

- Number of Procedures 400
- Age range 17 -68 yrs
- BMI range 28- 82
- Average Weight loss at 1 year 46 Kg

## Obesity Related Comorbidities



## Impact of Bariatric Surgery on Hypertension

Status of Hypertension	No of Patients	Percentage
Off antihypertensives	19	19.5%
Reduced dosage	59	61%
No change	19	19.5%

## Impact of Bariatric Surgery on Diabetes

Status of diabetes medication	No of Patients	Percentage
Off all medicines (OHA)	54	77%
Reduced dosage of OHA S	5	7.1%
Insulin to OHA s	7	7.7%
No change	3	4.2%

## Impact of Bariatric Surgery on OSA

Almost 100% of our patients are completely off CPAP for OSA and have shown significant improvement in symptoms of OSA clinically

# FAQ s

At the All India Institute of Medical Sciences, we want you to feel confident that weight loss surgery is right for you. This Q & A is designed to give you answers to common questions people have about weight loss surgery.

Q. How do I know if I am eligible for weight loss surgery?

A. In order to determine a patient's eligibility for weight loss surgery, we use body mass index (BMI) rather than using weight as a criteria for surgery -- excess fat in relation to height. Individuals are candidates for surgery if:

- They have failed previous attempts at weight loss in a medically supervised program
- Their BMI is greater than 40 or between 35 and 40 with major obesity-related medical problems.

Q. Is weight loss surgery right for everyone?

The answer is no. Surgery is not a solution for everyone. We only determine whether a patient is right for surgery after a complete evaluation and discussion with the patient. Because weight loss surgery is a life-altering procedure, we want to make sure our patients are committed to making the lifestyle changes needed for a successful procedure.

Q. What are the risks of weight loss surgery?

A. All major surgery comes with risks, and the risks are different for each patient. During your first appointment, your surgeon will explain your individual risk level.

Q. How much weight will I lose? Will the weight loss be quick?

A. The amount of weight you lose -- and how fast you lose it -- depends on which weight loss surgery you have. Patients who have adjustable gastric banding (Lap-Band®) procedure usually lose lesser weight than those who have gastric bypass (RYGB) or sleeve gastrectomy. In our program the average weight loss after surgery varies between 60-70% percent of his or her excess body weight after surgery. It will also depend on how strictly you follow the postoperative advice such as dietary instructions as well as regular physical activity.

Q. Can I become pregnant after weight loss surgery?

A. Women should avoid pregnancy for at least 18 months after surgery. Please discuss any pregnancy plans with your surgeon during one of your clinic appointments.

Q. If I am interested in weight loss surgery, what is my first step?

A. If you are interested in weight loss surgery, you can attend our bariatric surgery clinic for further information. Information regarding bariatric clinic has been given in detail previously

Q. How long will I have to stay in the hospital after surgery?

A. Your hospital stay will depend on the type of weight loss surgery you have. Generally, hospital stay after surgery is about two to three days

Q. How long will I be off of work after surgery?

A. Again, your time off of work will depend on the type of weight loss surgery you have. After Lap-Band® surgery, you can return to work in about one-week. The sleeve gastrectomy / gastric bypass (RYGB) surgery requires an average of two- to four-week recuperation.

Q. Will I continue seeing my physician after surgery?

A. Yes. Because your medical conditions will change following weight loss surgery, it is essential that you are closely monitored by your doctor.

Q. Will I have to take vitamins?

A. Yes, but the amount and duration depends on your weight loss procedure.

Q. Should I exercise after weight loss surgery?

A. Regular exercise is extremely important for maintaining your weight loss. Your surgery team will help you with the instructions on type of exercise you should be doing.

Q. What is the recovery time following surgery?

A. We usually encourage our patients to be mobilised on the day of surgery (within 6 hrs of surgery) in order to prevent clotting in the leg veins (DVT) Our patients are usually completely mobile by day 1 and are usually discharged by day 2 or day 3. They are advised a period of sedentary work for up to 1 month after which they can resume their normal activities.

Q. How often am I required to see the surgeon/physician assistant and dietician after surgery for follow-up?

A. Following bariatric surgery you will have to visit the doctor after a week during which suture removal and other immediate postoperative complaints can be attended. The follow-up is life long and includes 3 monthly visits for first year and the annual visits. It is extremely important for you to be regular and not miss your appointments.

# Getting Bariatric Surgery Done at AIIMS



## Detailed Medical Evaluation

- Blood workup/USG/Doppler/ECHO
- Endocrinology evaluation in endocrinology OPD
- Upper GI endoscopy in Gastroenterology
- Evaluation by pulmonologist
- Pulmonary function tests
- Polysomnography to detect sleep Apnea
- Cardiology evaluation in cardiology OPD.
- Psychiatry evaluation



## What is BMI?

BMI or Body Mass Index is a measure of calculating a person's excess weight.

It is calculated by the following formula:

$$\text{BMI} = \frac{\text{Weight (in kgs)}}{\text{Height (in m)} \times \text{Height (in m)}}$$



People are classified as:

	WHO CRITERIA	RECOMMENDATION FOR INDIANS
Normal	less than 25 kg per m <sup>2</sup>	less than 23
Overweight	more than 25 kg per m <sup>2</sup>	more than 23
Obese	more than 30 kg per m <sup>2</sup>	more than 27.5
Severe obesity	more than 35 kg per m <sup>2</sup>	more than 32.5
Morbid obesity	more than 40 kg per m <sup>2</sup>	more than 37.5

Once classified, patients who are obese or severely obese are treated medically; bariatric surgery is reserved for patients who are morbidly obese or severely obese with concomitant obesity-related diseases.

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