



# Bariatric Surgery @ AIIMS- Towards a Healthier Nation ... Newsletter

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## Problem of Rising Obesity in India

Obesity affects 5% of the Indian population. Indians have a tendency to accumulate fat around the waistline leading to central obesity. A recent family health survey has revealed that 12.1% males and 16% females are either overweight or obese. School surveys in Indian cities show that 30% of adolescents from India's higher economic groups are overweight.

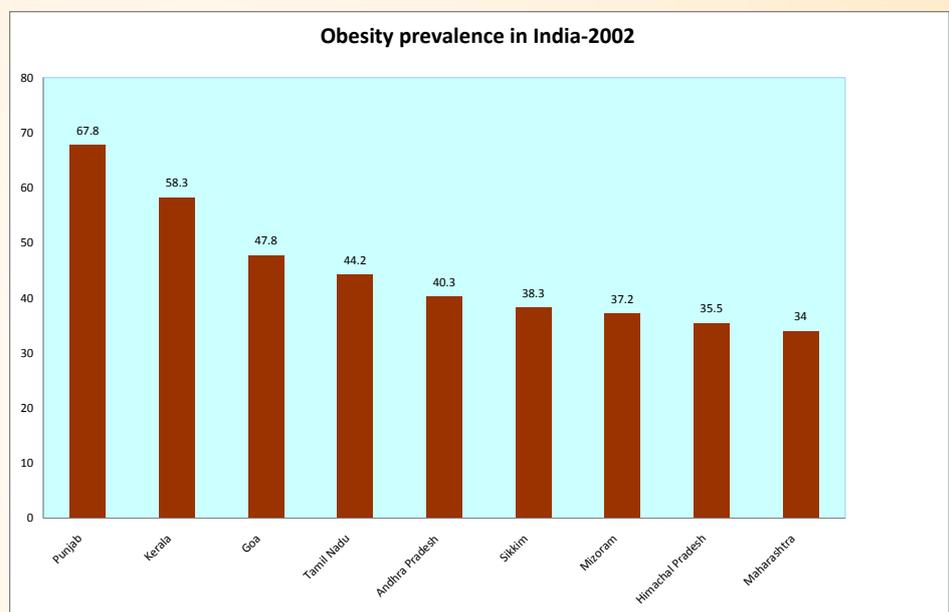
This rising trend is attributed to changing diet and increasingly sedentary lifestyle. 20% of the population consumes 80% of the visible dietary fat. Consumption of fruits and vegetables in India is low

less than 150 g a day, against the recommended 400 g. While millions of people suffer from malnutrition, the upwardly mobile Indian middle class is grappling with the problem of obesity.

Obesity is not just a cosmetic problem. Morbidly obese patients are more prone to a number of diseases including diabetes, hypertension, sleep apnea, joint disease. There is an increased incidence of certain cancers among the obese population. This has important implications in terms of cost of health care for a nation. With India already carrying the dubious tag of being the Diabetes capital of the world, we need to have a serious approach to tackle this rising menace of obesity and its associated diseases.

Bariatric Surgery is the only effective means of sustained weight loss and it positively impacts the co-morbidities associated with morbid obesity. 70-80% of patients undergoing bariatric surgery have resolution of Type II Diabetes Mellitus, Hypertension and hyperlipidemia. Majority of the patients lose about 60-80% of their excess weight loss within a period of 2 years after surgery. Bariatric Surgery leads to a marked improvement in quality of life.

Bariatric surgery till recently was being offered in only few selected centers in metropolitan cities. The treatment is expensive and beyond the reach of a significant segment of population. AIIMS is the first public funded hospital in the country to offer this service. The aim is to offer low cost and safe surgical treatment and to contribute towards formulation of national guidelines in future.



# Live Operative Workshop on Obesity Surgery

## Lamp Lighting Ceremony



After preparing for over a year, the bariatric surgery program at AIIMS started with a Live Operative Workshop on 31st January 2008. The workshop was held in Dr Ramalingaswami Board Room, AIIMS. Dr Ashutosh Kaul, Director Minimally Invasive and Robotic Surgery at New York State Medical College was the chief faculty. Two procedures were demonstrated; Laparoscopic Sleeve Gastrectomy and Laparoscopic Roux N Y Bypass. The workshop was inaugurated by Dr T D Dogra, Director AIIMS and it was followed by lamp lighting ceremony. In his welcome address Prof M C Misra, Head of Department Surgical Disciplines and Chief JPNA Trauma Center, told that the workshop was a step towards establishing a full- fledged program for surgical treatment of obesity at AIIMS. He further said that this service would help patients from all over India to avail this treatment, which otherwise can be afforded only by privileged few.

The meeting was attended by more than 150 delegates and eminent surgeons from across the city.





Dr Sandip Mukerjee chairing a session.



Dr Ashutosh Kaul giving a talk



Dr Praveen Bhatia and Dr Sandeep Malhotra moderating a session.



Dr Ashutosh Kaul receiving AIIMS plaque from the Director.



Dr Rajeshwari performing fibre optic bronchoscopy on a bariatric patient.



Dr Ashutosh Kaul operating in the workshop.



## Case Study - 1



Immediate post operative care in ICU.



3 months after the surgery.

Sanjay Aggarwal, 30-years -old male was one of the initial patients registered for bariatric surgery. He weighed 165 Kg and had a BMI of 57 with hypertension and severe obstructive sleep apnea (OSA). He required CPAP machine at night. He was unable to walk more than 500 meters without getting breathless. He was extensively evaluated and counseled before surgery. He got admitted twice and got discharged as he was afraid of surgery. Finally when his condition deteriorated further and he gained more weight he came to us requesting for surgery. He was admitted, optimized over a period of next 7-10 days. He underwent a Laparoscopic Sleeve Gastrectomy on 9/3/2008. Postoperative he required ICU care for 2-3 days as he developed a chest infection. He has done very well. He has lost more than 50 Kg over last 5 months. He does not require CPAP and his blood pressure is normal without medicines. He walks 5-6 Km every day. "I've been given a new life," says Sanjay.

## Case Study - 2



Monitoring in HDU.

Dheeraj Anand 33-years old male weighed more than 225 Kg when he came to meet us initially. His BMI was 76. He also had severe OSA. He also had lymphodema of the right lower limb. He was very motivated to get surgery. We advised him to lose at least 15-20 Kg on diet before surgery. We also counseled him that he will need two-stage surgery. In view of super-super obesity, he was also told that surgery carries a higher risk of complications than other morbidly obese patients. He managed to lose about 8 Kg before undergoing Laparoscopic Sleeve Gastrectomy on 30th May 2008. His surgery was uneventful and he was discharged on 3rd Postoperative day. He is doing well and has lost 30 Kg since then.



The first bariatric patients with Prof. M. C. Misra, Dr. Sandeep Aggarwal & the dietician Ms. Richa Jaiswal.



### *Tribute to Mr Vinod Dawar*

A kind hearted and generous soul that he was, Mr Vinod Dawar was the first patient operated by us at AIIMS after the workshop. He underwent a Laparoscopic Sleeve Gastrectomy on 8/2/2008. He was doing well and had lost about 30 Kg over 5 months when fate snatched him away. He was run over by a blue line bus while going to a temple in East Delhi. He was a true gentleman who was not afraid to be the "First patient". He was initially scheduled to be operated during the workshop but could not be operated due to his blood sugars going haywire. Any other person would have been very bitter but when we went to meet him in the evening after the workshop was over, he congratulated us at the start of the bariatric surgery at AIIMS. He was much more than a patient to us. He had actually become an integral part of our bariatric team. He would visit us regularly and encourage other patients who were admitted for bariatric surgery.

He had a very positive attitude. When told that death is a possibility during or after surgery, he said- " Please donate my organs if I die". Such was his magnanimity. He had complete faith in AIIMS doctors and health care system.

As a patient he was doing great. His insulin requirements went down to 10 units from 44 units preoperatively and he had become very active. He constantly talked about the bariatric surgery services at AIIMS and gave valuable suggestions for improvement.

His death is a tremendous loss to us and has left a vacuum that will be difficult to fill. May his soul rest in peace. His children have pledged to carry out his mission to continually support our program for the benefit of others.

# AIIMS Bariatric Surgery Programme at a Glance

## AIIMS BMI CUT OFF CRITERIA ARE

1. Patients with BMI above 40 with or without co-morbidities
2. Patients with BMI above 35 with one or more Co-Morbidities
3. Patient with a lesser BMI with multiple failed non-surgical attempts at weight loss

## NUMBER OF CASES OPERATED :- 17 CASES OVER LAST 6 MONTHS.

- Males 6
- Females 11
- Age range 24-65 years
- BMI Range 34-76

## PROCEDURES

- Laparoscopic Sleeve Gastrectomy 16
- Laparoscopic Roux N Y Gastric Bypass 1

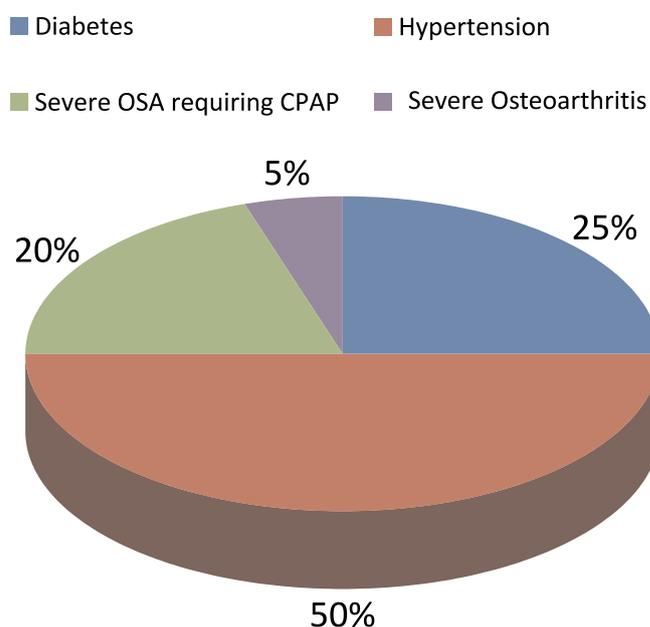
## RESULTS

Follow-Up 7 days-180 days

**Weight Loss:** The weight loss has been fairly impressive in all the patients. It has been in the range of 25- 50 Kg for patients who have completed 2 months or more after surgery.

**Obstructive Sleep Apnea (OSA):** All the four patients who were on CPAP preoperatively are off it.

Pie chart showing comorbidities in our bariatric patients



## IMPACT OF BARIATRIC SURGERY ON HYPERTENSION

Status of Hypertension	Number
Resolved	2
Improved	6
Unchanged	2

## IMPACT OF BARIATRIC SURGERY ON TYPE II DIABETES

Status of Diabetes	Number
Resolved	3
Improved	2

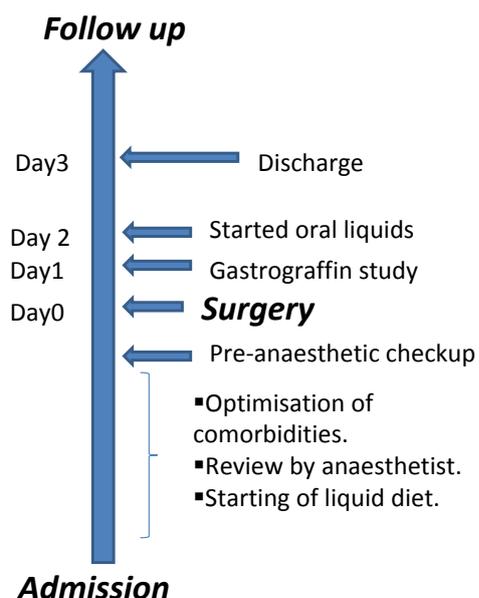
# Getting Bariatric Surgery done at AIIMS



## DETAILED MEDICAL EVALUATION

- Blood workup
- Endocrinology evaluation in endocrinology opd
- Upper GI endoscopy in Gastroenterology
- Evaluation by chest physician
- Pulmonary function tests
- Routine polysomnography to detect sleep apnoea
- Cardiology evaluation in cardiology opd
- Psychiatry evaluation

## Chart showing timescale of events after admission



### For more details contact

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**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:

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

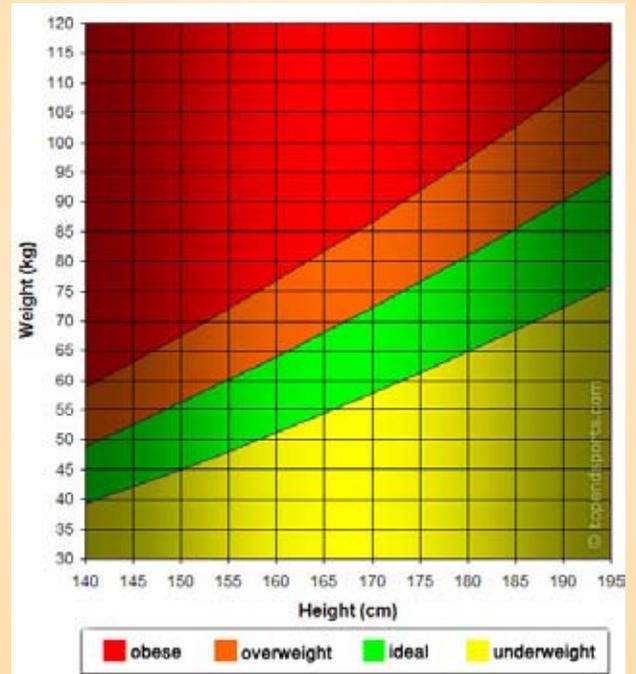


People are classified as:

	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.

**BMI CHART**



*Announcement!*

**2ND LIVE OPERATIVE WORKSHOP ON BARIATRIC SURGERY**

**Venue:** AIIMS, New Delhi

**Date:** October 2008 (Exact date will be announced soon)

**ORGANIZING CHAIRMAN**

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