The term “Morbid obesity”

Clinical Appraisal of Jejunoileal Shunt in Patients with Morbid Obesity

The term “morbid obesity” was first used in 1969 in the American Journal of Surgery when Dr. Scott and Dr. Law stated that “We identify morbid obesity as existing in any person whose weight has reached a level two or three times his ideal weight and who has maintained this level of obesity for five years or more.”
2 out of 3 Norwegians are overweight or obese

- 2/3 of the Nord-Trøndelag county adult population are overweight or obese
- Overweight ↑↑ during the last 20 yr
  - Women 43% - 61%
  - Men 50% - 75%
- The prevalence of overweight is larger than in USA, says professor Kristian Midthjell, who also believes that people from Nord-Trøndelag mirror the Norwegian population.

Classification of obesity according to Body Mass Index

- **Overweight**
  - Body mass index (BMI) 25 - 30 kg/m²

- **Obesity**
  - BMI ≥ 30 kg/m²

- **Morbid obesity**
  - BMI ≥ 40 kg/m²
  - Or BMI ≥ 35 kg/m² + comorbidity
At least 100 000 Norwegians are morbidly obese

2004

- 2004 New law regulating morbidly obese patients' rights
- The Ministry of Health and Care Services instructed the 5 Regional Health Authorities (RHAs) to provide morbidly obese patients with an appropriate treatment choice, either conservative or surgical
- Vestfold Hospital Trust agreed with the Southern Norway RHA to conduct a project offering morbidly obese patients a complete diagnostic assessment and treatment, either conservative or surgical.
- An interregional working group consisting of surgeons, administrators from the RHAs, internists and others from the 5 health regions developed formal national guidelines (2005), revised in 2007.*


- Holistic and equal treatment offers
  - The working group recommended to establish a regional resource centre with the responsibility to offer a holistic and equal treatment for morbidly obese children, adolescents and adults in each of the 5 RHAs
- Research mandatory
  - The 5 regional resource centres are also obliged to evaluate and investigate the effect of various treatment choices, including lifestyle intervention, drugs and bariatric surgery
- Multidisciplinary outpatient obesity clinics
  - The working group also specifically recommended that the evaluation and diagnostic workup should be performed in a multidisciplinary outpatient clinic.
The Overweight Project

- "Multidisciplinary" team (September 1st 2004 start)
  - 1 secretary (80%)
  - 1 endocrinologist (50%)
  - 1 physician (2*50% from November 2004)
  - 1 dietitian (60%)
  - 1 nurse (30%)
  - 1 project leader (20%)
  - 2 bariatric surgeons (20%)
  - 1 anesthesiologist (10%)

19.12. 2006

The board of directors in Southern Norway RHA agreed to establish a permanent regional centre for morbid obesity located at Vestfold Hospital Trust in Tønsberg, Norway

The Morbid Obesity Centre

Mobid Obesity Center (SSO)

- 17 employees
- 600 new patients/year
- 6000 consultations/year
- 2-4 surgeons
- 200-250 operations/year
- 6 employees
- 350 consultations
- Family based
Main tasks SSO

- Regional treatment of morbid obesity
  - Adults, adolescents and children
  - Conservative treatment and surgery
- Research and development
  - Responsible: Sandbu, Lekhal and Hjelmesæth
- Network
  - Local hospitals
  - Primary care
  - Research and development

Main tasks MOC

- Treatment
- Network
- Research

Number of patients 2004-2011
Patient characteristics

• 3000 patients have received treatment
• 2000 of these are women
• 1000 bariatric surgeries
• Average BMI 45 kg/m²
• Average age 45 years of age
• 50 % have hypertensive disease
• 30 % have diabetes
• 60 % have obstructive sleep apnea

Comorbidities (1)

Type 2 diabetes
Hypertension
Sleep apnea
Obesity
Stroke
Lung disease
Myocardial infarction
Polycystic ovary syndrome

Comorbidities (2)

Anxiety
Depression
Joint pain
Sosial isolation
Arthrosis
QOL ↓↓
Treatment for morbid obesity

- Intensive lifestyle intervention
- Antiobesity drugs
- Bariatric surgery

Bariatric Surgery

Morbid obesity has over the last decades been used to describe patients eligible for bariatric surgery.

- The 1991 National Institute of Health Consensus Development Conference Panel established the following general criteria for eligibility for bariatric surgery:
  - Patients with BMI ≥ 40 kg/m² could be considered surgical candidates;
  - Patients with less severe obesity (BMI ≥ 35 kg/m²) could be considered if they had high-risk comorbid conditions.
  - In Norway we define morbid obesity as BMI ≥ 40 kg/m² or BMI ≥ 35 kg/m² with an obesity-related comorbidity

Types of bariatric surgery

- Gastric bypass surgery
- Vertical sleeve gastrectomy
- Vertical sleeve gastrectomy with biliopancreatic diversion and duodenal switch
- Gastric band surgery
Adjustable gastric banding

Complications following bariatric surgery

- Perioperative complications (≤ 30 days)
  - Gastrojejunal leak
  - Serious bleeding
  - Infections
  - Pulmonary embolism

- Late complications (> 30 days)
  - Surgery group
    - Gallstone disease
    - Gastric ulcers
    - Postprandial hypoglycemia
    - Intestinal herniation

- Other transient complications (≤ 30 days)
  - Hair loss
  - Reduced cognitive function
  - Diarrhea

LYMPHEDEMA IN OBESITY
LYMPHEDEMA IN OBESITY

Lymphedema is not uncommon in obesity, but massive localized lymphedema in morbid obesity is rare. However, there are several single-case reports showing that although rare they do occur in morbidly obese patients and often need surgical intervention. The literature suggests that super obese individuals might be overrepresented.


Fat and fit live as long as slim?

• People who are fat and fit live just as long as their slim counterparts and are less likely to die from heart disease, according to a new study.
• Researchers looked at 6,000 obese Americans over a 16-year period and compared their death rates with those of lean individuals. The findings were published today (August 15, 2011) in the journal Applied Physiology, Nutrition And Metabolism.
• Study leader Dr Jennifer Kuk, from York University in Toronto, Canada, said: “Our findings challenge the idea that all obese individuals need to lose weight.
• Moreover, it’s possible that trying - and failing - to lose weight may be more detrimental than simply staying at an elevated body weight and engaging in a healthy lifestyle that includes physical activity and a balanced diet with plenty of fruits and vegetables.”