Early Career Fundamentals

XXVII IFSO World Congress, Melbourne - 2024

Indications for Surgery

ASMBS-IFSO New Guidelines for Bariatric and Metabolic Surgery

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Indications for Surgery

As previously disclosed, these are the companies with which I have a financial or other relationship (s):

Company Name (s)	Nature of Relationship (s)
Obesity Surgery Journal	Editor-in-Chief
BARInet	Medical Director

Indications for Surgery

Do You Remember 1991?

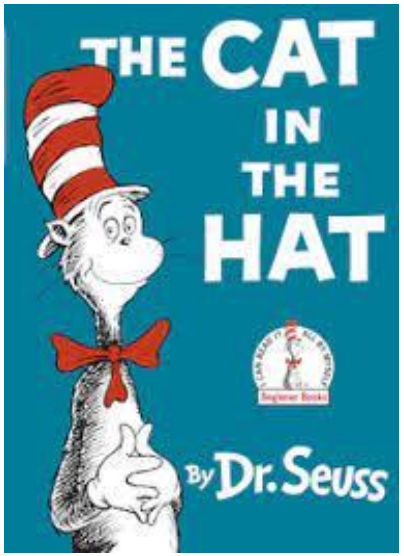
Indications for Surgery

Do You Remember 1991?

Dances With Wolves won an Oscar for Best Picture

Indications for Surgery

Do You Remember 1991?



Children's author Dr. Seuss dies

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Do You Remember 1991?

Eastern Airlines and Pan American World Airways go out of business

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Do You Remember 1991?

Terminator 2 – Judgement Day was the highest grossing film

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Do You Remember 1991?

Kentucky Fried Chicken changed its name to KFC

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Do You Remember 1991?

The Soviet Union dissolves into 14 countries

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Do You Remember 1991?

The U.S. National Institute of Health (NIH) developed the first criteria for determining if a patient could have bariatric surgery

NIH. Ann Int Med, 1991

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The NIH Criteria

- Created to determine if a patient could have bariatric surgery
- Relied heavily on body mass index (BMI) and the published papers from the 1970's and 1980's
- Open gastric bypass and the vertical banded gastroplasty were the predominant procedures performed
- The criteria were widely adopted world-wide
- Despite being significantly outdated, these criteria are still in use today!

NIH. Ann Int Med, 1991

Indications for Surgery

The World Has Changed Since 1991

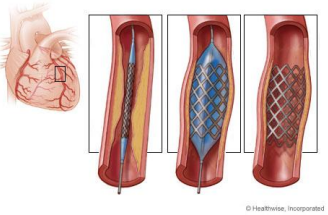
Smart Phones

Robotic Surgery

Electric Cars

Viagra

Social Media



Cardiac Stents

....And so much more

Indications for Surgery

What Has Changed Since 1991

- Marked increase in the incidence of obesity
- Introduction of laparoscopy and robotics into MBS
- New procedures (LAGB, DS, sleeve, OAGB, SADI)
- 32 years of experience with bariatric surgery
- Common knowledge that surgery improves health and quality of life
- Abundant published evidence that MBS is safe and effective (RCTs, and large databases)
- MBS is also cost effective

Buchwald, J Am Coll Surg 2005

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What Has *NOT* Changed Since 1991?

?

That's right. The NIH guidelines *(not really guidelines, more like requirements)* for Bariatric Metabolic Surgery

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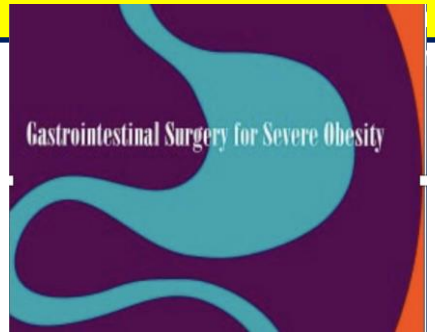
1991 - NIH Consensus Statement

NIH Consensus Development Conference on Gastrointestinal Surgery for Severe Obesity

May 25-27, 1991



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1991 - NIH Consensus Conference

- 2 day meeting to create the criteria for obesity (bariatric) surgery – May 25-27, 1991
- Consisted of “experts” representing many disciplines
- The participants
  - 14 panel members – (one surgeon and 1 retired surgeon)
  - 20 presenters - 14 surgeons with expertise in obesity surgery
  - After each presentation, there was discussion that included audience participation
  - The panel then developed the criteria

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The 1991 Criteria for Surgery

- BMI $\geq$ 40 kg/m^2
- BMI $\geq$ 35 kg/m^2 with major comorbidity
- Demonstrated repeated failure of non-surgical weight loss attempts
- No history of significant psychiatric disorders
- Open gastric bypass and the vertical banded gastroplasty

Unchanged and still in use !!

Indications for Surgery

1991 NIH Criteria Are Outdated

"This statement is more than five years old and is provided solely for historical purposes. Due to the cumulative nature of medical research, new knowledge has inevitably accumulated in this subject area in the time since the statement was initially prepared. Thus, some of the material is likely to be out of date, and at worst, simply wrong."

National Institutes of Health
Consensus Development Conference Statement
1998

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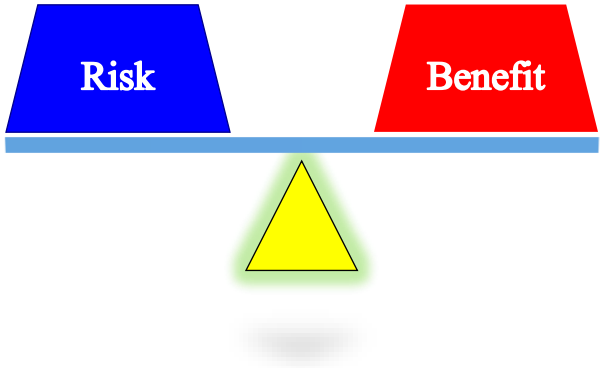
1991 NIH Criteria Limitations

- Not supported by current evidence-based data
- Was supposed to represent the favorable intersection between risks and benefits of bariatric surgery
  - Published literature was from the 1980's
  - Only open procedures (gastric bypass and gastroplasties)
  - 1980's patient care
  - Strongly based on BMI
- *Are now over 33 years old !!!*



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Justification for a Change

- The BMI $\geq$ 35 kg/m^2 cut off for surgery is arbitrary and not scientifically validated
  - Is there really a difference between BMI 34 kg/m^2 and BMI 36 kg/m^2?
  - The health concerns are the same
- There are significant treatment gaps for patients with class 1 obesity
- Asian patients with class 1 obesity are physiologically the same as non-Asians whose BMI > 35 kg/m^2
- Growing evidence that bariatric and metabolic surgery reduces the likelihood of contracting disease (i.e, T2DM, cancer, heart disease)

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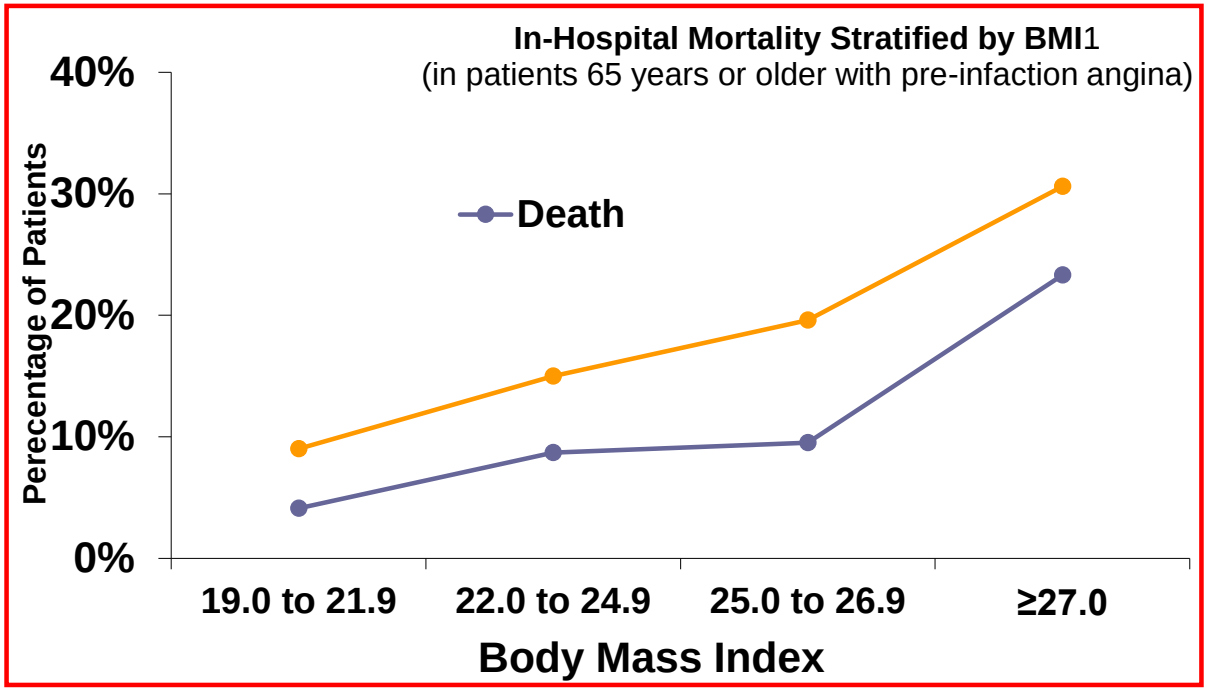
Mortality Increases With BMI



Abete P, et al. Am J Clin Nutr.2003

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BMI is a Poor Surrogate for Obesity

- Does not accurately represent degree of adiposity
- Discriminates against:
  - Age
  - Gender
  - Race/Ethnic origin
  - Fitness
  - Body composition
- Reasonable for population research but not very useful for individual subject analysis

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BMI is a Poor Surrogate for Obesity

Height – 85 in

Weight – 325 lbs

BMI – 31.6 kg/m^2

Height – 64 in

Weight – 174 lbs

BMI - 30 kg/m^2

Height – 88 in

Weight – 320 lbs

BMI – 29.1 kg/m^2

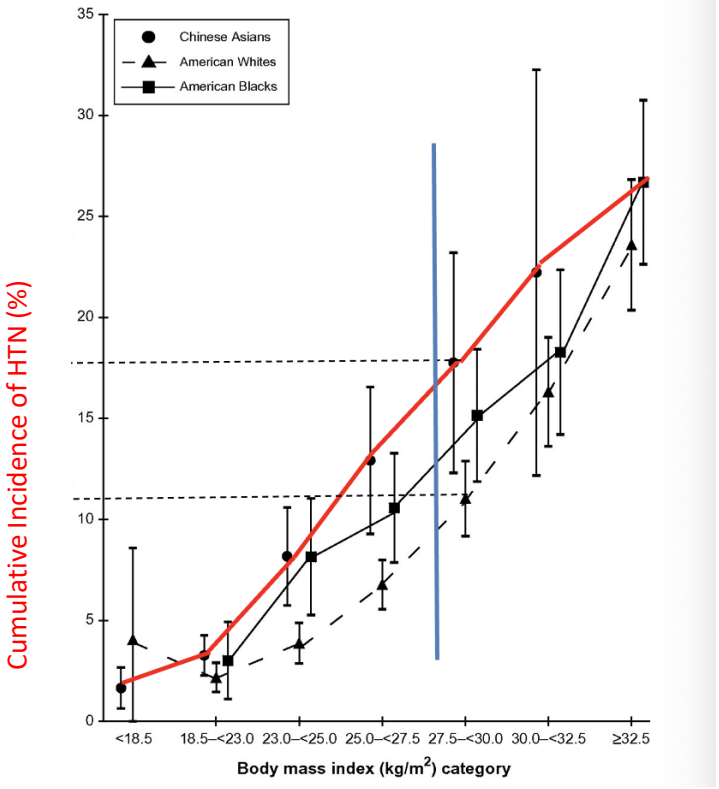
Indications for Surgery

BMI Discriminates by Ethnic Groups

Chinese 17%

American Whites 12%

American Blacks 15%



Stevens J, et al, AM J Epidem 2008

*27.5 kg/m^2

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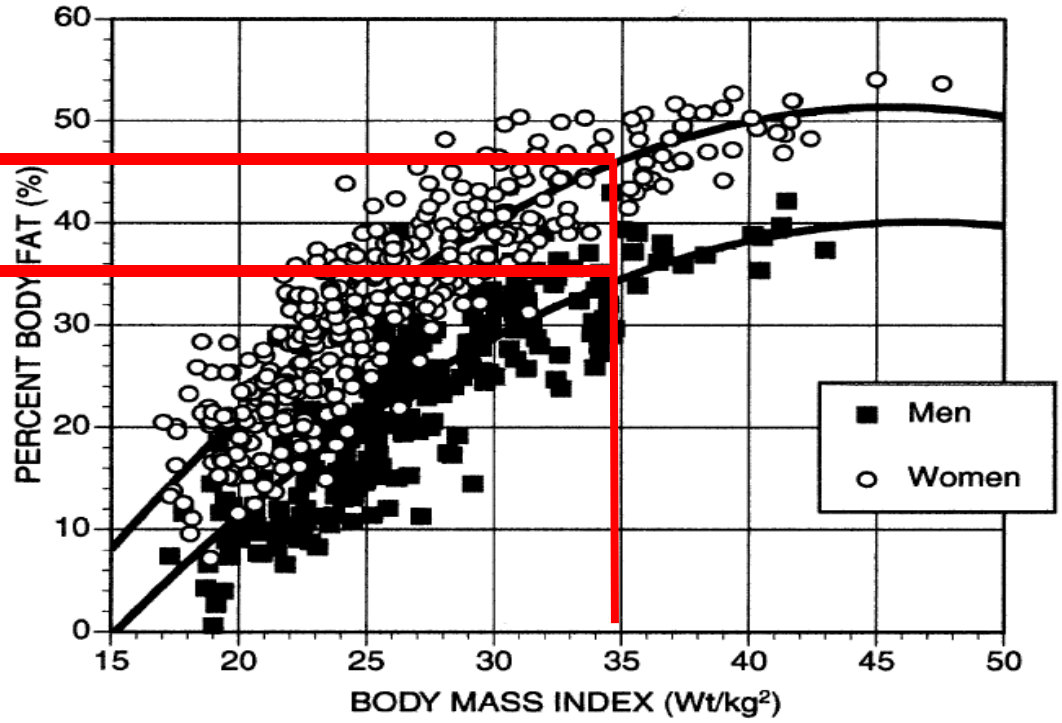
BMI Discriminates by Gender

Women 46%

Men 35%



Jackson AS, et al, Int J Obes, 2002

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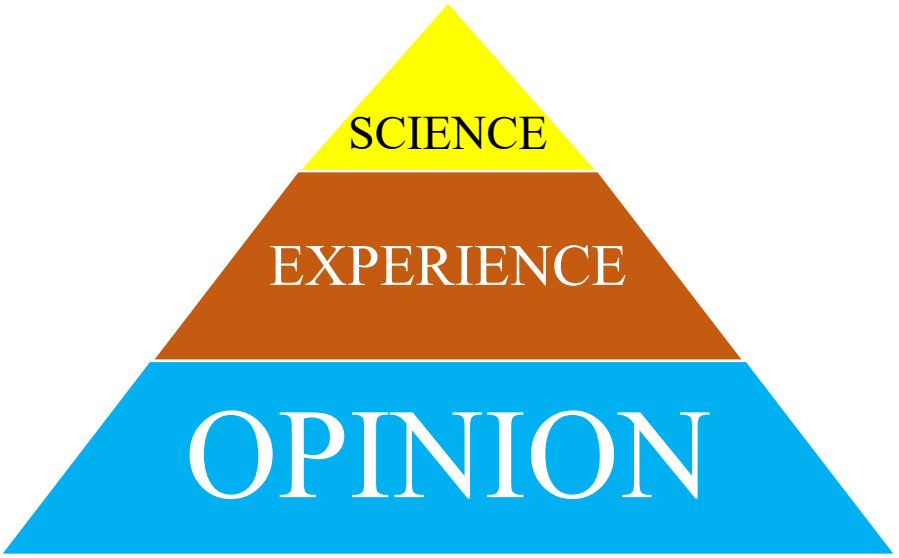
New Surgical Guidelines

1991 NIH Criteria for BMS



2022 ASMBS/IFSO Guidelines for BMS

Indications for Surgery

ASMBS/IFSO New Guidelines

- ASMBS and IFSO agreed to work together to create new MBS guidelines for surgery
- Writing committees from ASMBS and IFSO did extensive literature searches to find which potential criteria are supported by high quality research and published in high impact journals RCTs, large database analysis (MBSAQUIP), etc

Obesity Surgery and Surgery for Obesity and Related Disorders, 2022

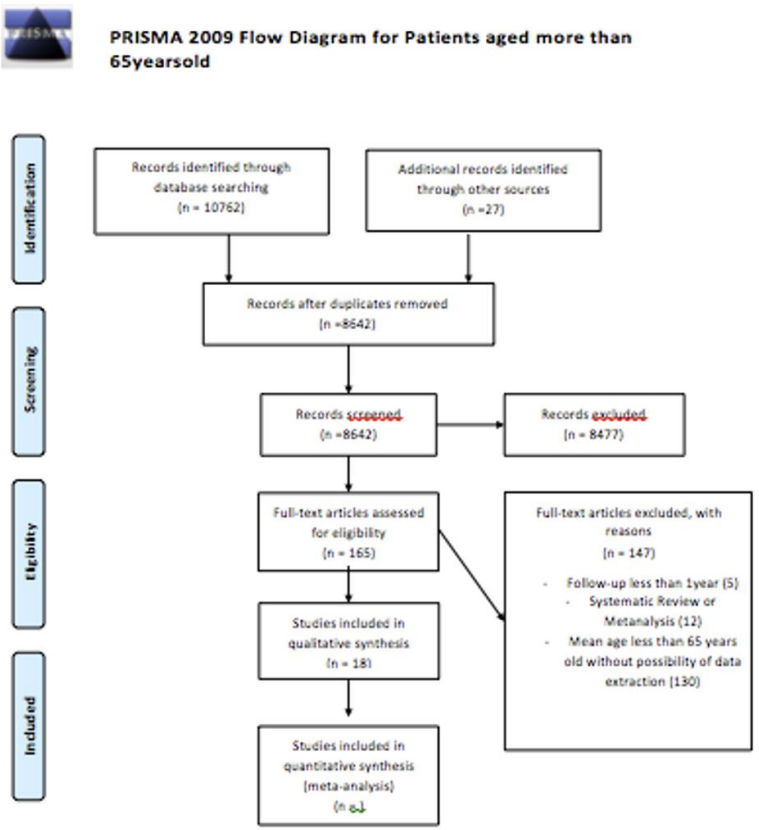
Indications for Surgery

PRISMA

Extremes of age

4) Older population

Pubmed, Cochrane, Embase



IFSO

Indications for Surgery

ASMBS/IFSO Criteria for MBS

• BMI 30 – 34.9 kg/m^2 and metabolic disease	Level 2a	Grade B
• **BMI 35 ≥ kg/m^2**	Delphi	
• BMI threshold for Asians (27.5 kg/m^2)	Level 2a	Grade B
• Older patients	Level 2a	Grade B
• Pediatric and adolescent patients	Level 1b	Grade A
• **Joint arthroplasty**	Delphi	
• Abdominal ventral hernia repair	Level 2b	Grade B
• Organ transplantation	Level 2b	Grade B
• BMI > 60 kg/m^2	Level 2a	Grade B
• Cirrhosis	Level 2b	Grade B
• Heart failure	Level 2b	Grade B
• Multidisciplinary patient evaluation	Level 2c	Grace B
• Revisional surgery	Level 2b	Grade B

Indications for Surgery

Co-Published in Both Journals

Obesity Surgery
https://doi.org/10.1007/s11695-022-06332-1

IFSO

ORIGINAL CONTRIBUTIONS

2022 American Society of Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) Indications for Metabolic and Bariatric Surgery

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Major updates to 1991 National Institutes of Health guidelines for bariatric surgery

Metabolic and bariatric surgery (MBS) is recommended for individuals with a body mass index (BMI) ≥35 kg/m^2, regardless of presence, absence, or severity of co-morbidities.
MBS should be considered for individuals with metabolic disease and BMI of 30-34.9 kg/m^2.
BMI thresholds should be adjusted in the Asian population such that a BMI ≥25 kg/m^2 suggests clinical obesity, and individuals with BMI ≥27.5 kg/m^2 should be offered MBS.
Long-term results of MBS consistently demonstrate safety and efficacy.
Appropriately selected children and adolescents should be considered for MBS.

(Surg Obes Relat Dis 2022; https://doi.org/10.1016/j.soard.2022.08.013)

Keywords Obesity · Metabolic and bariatric surgery · IFSO · ASMBS · Criteria · Indications

Thirty years ago, the National Institutes of Health (NIH) convened a Consensus Development Conference that published a Statement on gastrointestinal surgery for severe obesity, reflecting expert assessment of the medical knowledge available at the time [1]. Specifically, it sought to address "the surgical treatments for severe obesity and the criteria for selection, the efficacy and risks of surgical treatments for severe obesity, and the need for future research on and epidemiological evaluation of these therapies," and included specific recommendations for practice. Among these are that nonsurgical programs should be initial therapy for severe obesity; that patients should be carefully selected for surgery after evaluation by a multidisciplinary team; and that lifelong medical surveillance continue after surgery. The 1991 NIH Consensus Statement has been used by providers, hospitals, and insurers, as a standard for selection criteria for bariatric surgery. A body mass index (BMI) ≥40 kg/m^2, or BMI ≥35 kg/m^2 with co-morbidities, is a threshold for surgery that is applied universally.

Since its publication, hundreds of studies have been published on the worldwide obesity epidemic and global experience with metabolic and bariatric surgery (MBS), which has greatly enhanced the understanding of obesity and its treatment [2, 3]. Now recognized as a chronic disease, obesity is associated with a chronic low-grade inflammatory state and immune dysfunction [4, 5]. It is suspected that the prolonged state of inflammation leads to a disruption of homeostatic mechanisms and consequently to metabolic disorders commonly associated with obesity, mediated by incompletely elucidated pathways involving cytokine production, adipokines, hormones, and acute-phase reactants [5–8].

With an increasing global MBS experience, long-term studies have proven it an effective and durable treatment of severe obesity and its co-morbidities. Studies with long-term

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ELSEVIER

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SURGERY FOR OBESITY AND RELATED DISEASES

Original article

2022 American Society for Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO): Indications for Metabolic and Bariatric Surgery

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Indications for Surgery

Conclusions

- The new ASMBS/IFSO Guidelines reflect the current state of MBS and are evidence-based
- Therefore, the indications for surgery:
  - Patients with excessive adiposity and one of the 13 conditions in the new guidelines
  - Patients considered to otherwise be good candidates for surgery even if they are high risk
  - Patients with metabolic conditions that are expected to improve or resolve with surgery
- It’s time to retire the 1991 NIH Guidelines !!