

About Obesity

THE INTERNATIONAL OBESITY TASK FORCE (IOTF)

A designated committee of the International Association for
the Study of Obesity



The IOTF was formally established in May 1996 at the
European Congress of Obesity, Barcelona.

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[Donald B. Brown Research Chair on Obesity](#)

[Source: International Obesity Task Force \(IOTF\)](#)

Introduction

The prevalence of obesity is rising to **epidemic proportions** at an alarming rate in both developed “Westernised” and less developed countries around the world .

For example, the prevalence of obesity has **increased by about 10-50%** in the majority of European countries in the last 10 years and currently affects 77% of males living in urban areas of Western Samoa in the Pacific.



The health, economic and psycho-social consequences of the increasing incidence of obesity are substantial. Obesity is associated with **numerous health complications** which range from non-fatal debilitating conditions such as **osteoarthritis**, to life threatening chronic diseases such as **Coronary Heart Disease, diabetes**, and certain **cancers**. The psychological consequences of obesity can range from **lowered self-esteem** to **clinical depression**. Recent estimates suggest that between **2 to 8% of the total sick care costs** in Western countries are attributable to obesity. Despite the high prevalence of obesity and the many advances in our understanding of how it develops, present management strategies have persistently failed to achieve long term success.



Table 1. Classification of overweight and obesity in adults according to BMI. Obesity is classified as BMI \geq 30 kg/m².

Classification	BMI (kg/m ²)	Risk of co-morbidities
Underweight	<18.5	Low (but risk of other clinical problems increased)
Normal range	18.5-24.9	Average
Overweight	25.0-29.9	Mildly increased
Obese	>30.0	
Class I	30.0-34.9	Moderate
Class II	35.0-39.9	Severe
Class III	>40.0	Very severe

'Note that these values are age-independent and correspond to the same degree of fatness across different populations

"Note that both BMI and a measure of fat distribution (waist circumference or waist hip ratio etc.) are important in calculating the risk of obesity co-morbidities. BMI < 18.5kg/m² signifies an increased risk of developing other clinical problems.

[Calculate your BMI \(Roche\)](#)

[BMI Chart \(Shape Up America\)](#)



Incidence, prevalence & co-morbidity

The prevalence of obesity is rising to **epidemic proportions around the world at an alarming rate**. The rise in obesity is not restricted to more developed countries. With increasing Westernisation, the prevalence of overweight and obesity appears to be rising amongst more affluent populations of Less Developed Countries, even in those countries with current food security problems and significant rates of under-nutrition. Ghana for example, has only slightly more underweight (BMI<18.4), than overweight (BMI>25) people. This situation has been exacerbated due to the image of prosperity and success associated with weight gain in many of these societies. It will be interesting to see whether these cultural attitudes to obesity alter with increasing Westernisation.

EUROPE

Obesity is relatively common in Europe, especially among women and in Southern and Eastern European countries.

Current prevalence data from individual national studies suggests that the range of obesity prevalence in European countries is from **10 to 20% for men**, and **10 to 25% for women**.

Prevalence of obesity has increased by about 10-40% in the majority of European countries in the past 10 years¹. The most dramatic increase has been in the UK where it has more than doubled since 1980. There is some evidence however, that this increasing trend is levelling off among women, at least in some Scandinavian countries.

AFRICA

In contrast to most Western countries, the emphasis in Africa has been on under-nutrition and food security rather than overweight and obesity, and so there is little data on current prevalence.

Regional studies however, do indicate a growing prevalence of overweight and obesity in certain socio-economic groups. This can be illustrated by the **high prevalence of obesity (44%) found in black women** in the Cape Peninsular of the **Republic of South Africa**.

Secular Trends of obesity world-wide (BMI > 30)

Country	Year	Age	Men	Women
Quebec	1992	20-64	10	10
	1998		13.5	11.7
England	1980	16-64	6	8
	1986/7		7	12
	1991/2		13	15
	1995		15	16.5
East Germany	1989	25-65	13	21
	1992		21	27
USA	1973	20-74	11.6	16.1
	1978		12.0	14.8
	1991		19.7	24.7
Brazil	1975	25-64	3.1	8.2
	1989		5.9	13.3
Japan	1982	20+	0.9	2.6
	1987		1.3	2.8
	1993		1.8	2.6
China	1989	20-45	0.29	0.89
	1991		0.36	0.86
	1992		1.20	1.64
Western Samoa urban	1978	25-69	38.8	59.1
	1991		58.4	76.8
	rural		17.7	37.0
	1991		41.5	59.2

WHO, 1998

THE MIDDLE EAST

The limited data available indicates that the prevalence of **obesity in Middle Eastern countries is high**, particularly in women who appear in general to have a higher prevalence of obesity than women in most Western countries.

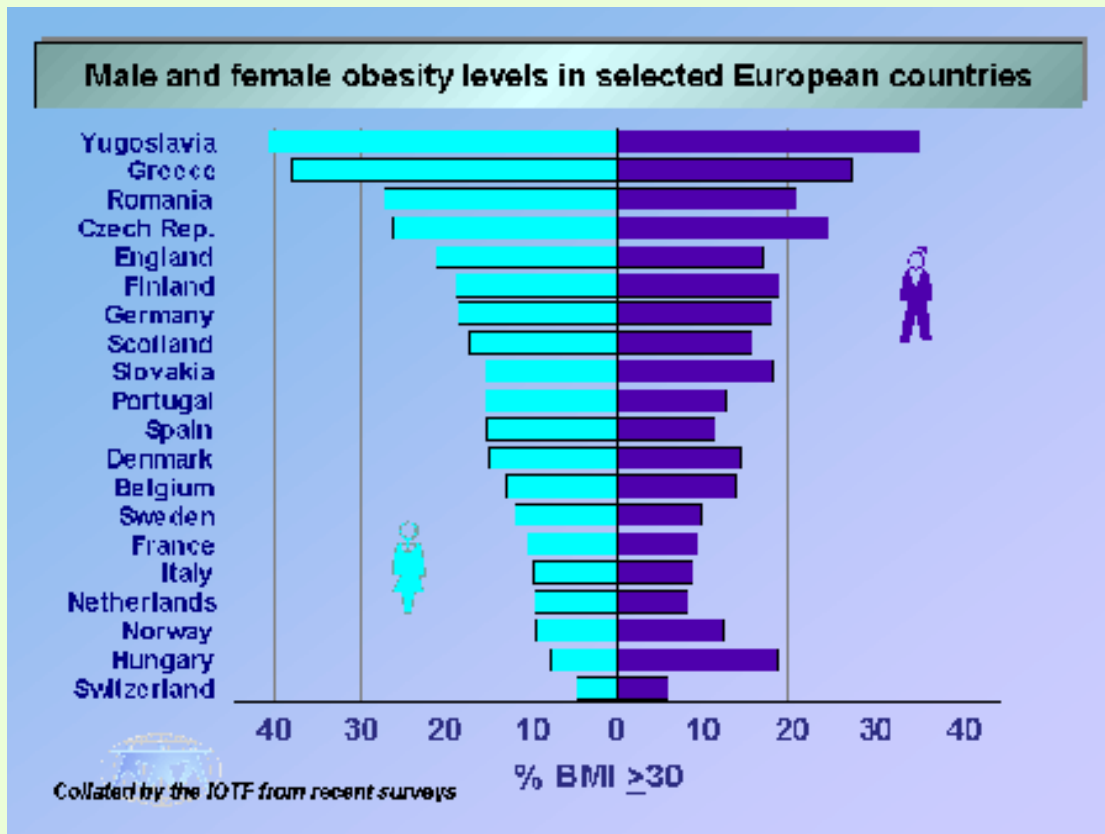
AMERICA AND THE CARIBBEAN

Prevalence of obesity in US increased dramatically in the 1980s, especially among **black women for whom 49%** were identified as being overweight with a BMI > 27.3 in 1991.

Obesity is a significant problem in the Caribbean, particularly in those countries with a higher per capita GNP, and affects women more than men.

Brazil is the only Latin American country to have a nationally representative survey conducted in the last 10 years. The PNSN survey indicated that obesity is prevalent in Brazil and is rising, especially among lower income groups. The problem of dietary deficit appears to be rapidly shifting to one of dietary excess.

Obesity global prevalence world-wide (BMI > 30) (IOTF)

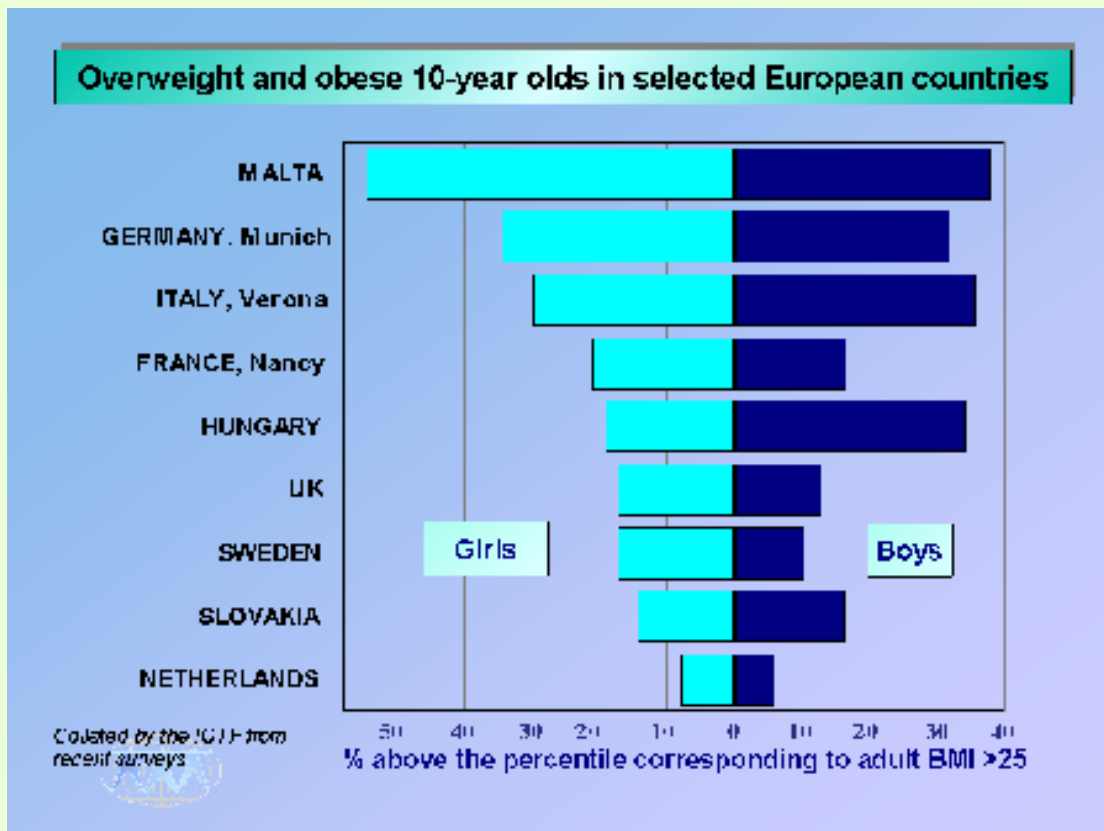


Country	Year	Age	Men	Women
Canada	1991	18-74	15	15
Québec	1998	20-64	13.5	11.7
South Africa Cape Peninsular	1990	15-64	8	44
Ghana	1987/8	20+	0.9	
Saudi Arabia Total Urban Rural	1990-93	15+	16 18 12	24 28 18
Kuwait	1994	18+	32	44
West Germany	1991	25-69	16	21
Netherlands	1994	20-59	10	11
Australia	1989	20-69	9.3	11.1
Japan	1993	20+	1.7	2.7
Czech Republic	1988	20-65	16	20

WESTERN PACIFIC COUNTRIES AND CHINA

In **Japan**, obesity in men has **doubled since 1982**, whereas its rise in women has been restricted to the younger age group (20-29 years) for which it has increased 1.8 times since 1976. Obesity is increasing in China and is more common in urban areas and among women. Obesity is not new to the Pacific and has long been regarded by Polynesian and Micronesian societies of this region as a symbol of high social status and prosperity. Prevalence has risen dramatically however, in the last 20 years. In 1991 for example, over **75% of urban males in Western Samoa** were classified as obese. Childhood obesity appears to be no longer restricted to the West as illustrated by Tonga where **23% of school children** were considered obese in 1986.

PREVALENCE IN CHILDREN



CAUSES OF OBESITY

The current obesity pandemic reflects the profound changes to society over the past 20 - 30 years that have created an environment that promotes a sedentary lifestyle and the consumption of a high fat, energy dense diet.



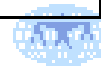
HEALTH CONSEQUENCES OF OBESITY AND MORBIDITY

The health consequences of obesity range from a number of non-fatal complaints that impact on the quality of life such as **respiratory difficulties, musculo-skeletal problems**, skin problems and infertility; to complaints that lead to an increased risk of **premature death** including non-insulin dependant **diabetes, gallbladder disease, cardiovascular problems (hypertension, stroke and CHD)** and **cancers** which are hormone related and associated with the large bowel. Hypertension, diabetes and **raised serum cholesterol** are between two and six times more prevalent among heavier women. Severe obesity is associated with a **12 fold increase in mortality** in 25-35 year olds when compared to lean individuals. Negative attitudes towards the obese can lead to discrimination in many areas of their life including health care and employment.

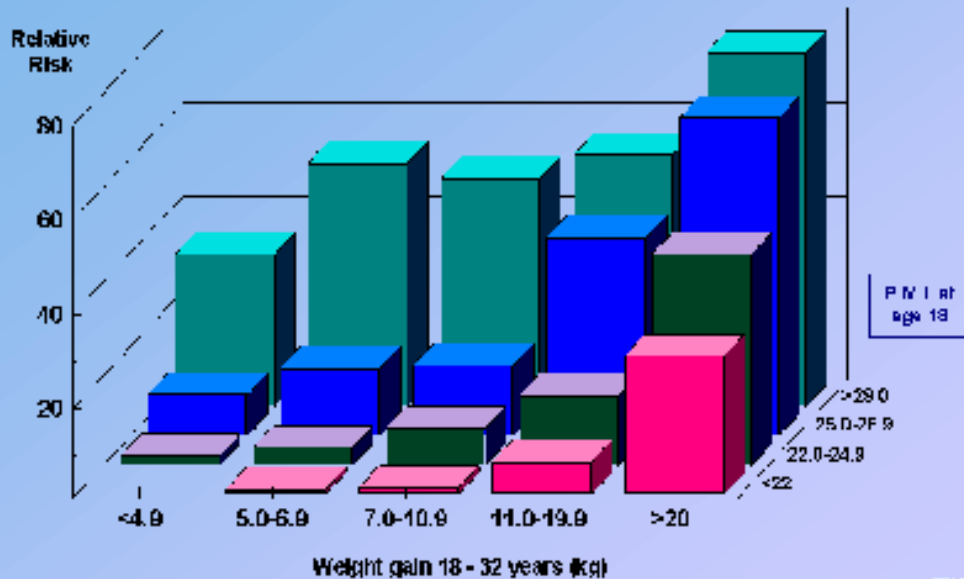
Sex-specific waist circumferences that denote "increased risk" and "substantially increased risk" of metabolic complications associated with obesity in Caucasians.

Risk of obesity associated metabolic complications

	Increased	Substantially increased
Men	≥94 cm (37 inches)	≥102 cm (40 inches)
Women	≥80 cm (32 inches)	≥88 cm (35 inches)

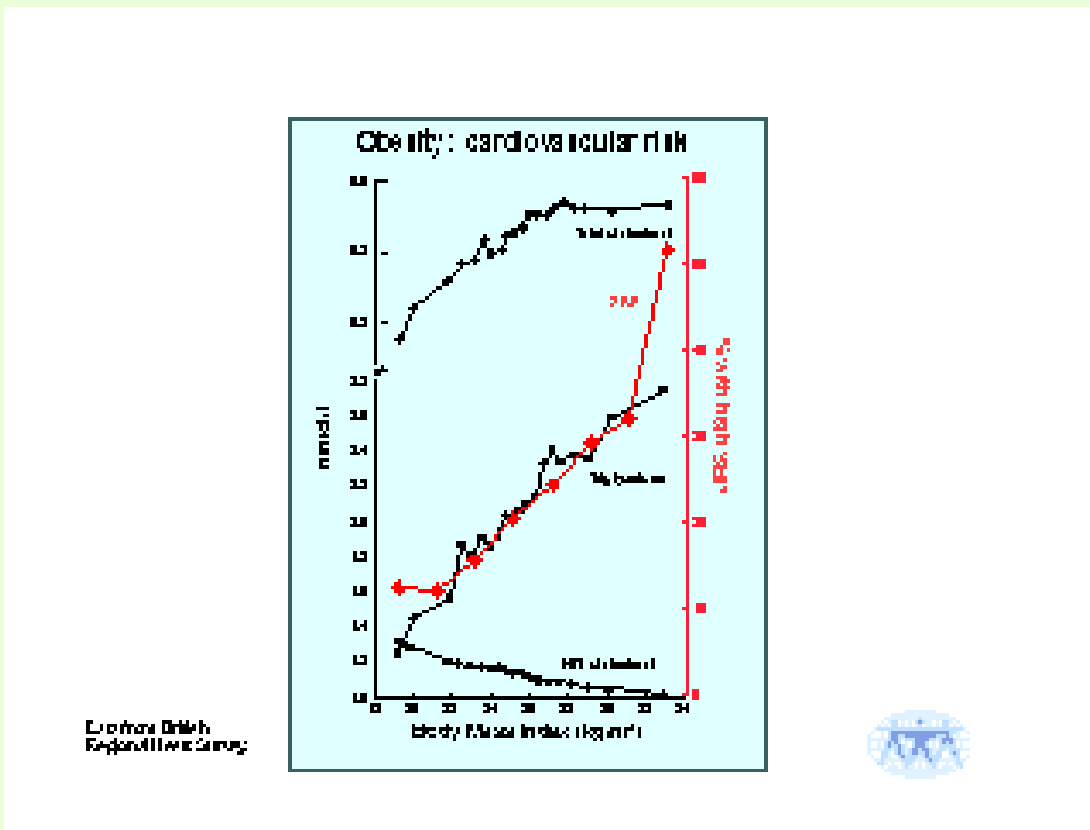


Age-adjusted relative risk for diabetes. Weight at age 18 and weight gain up to 32 years.



From Colditz et al. Ann Int Med, 1995, 122: 481.





Moreover, the **psychological consequences** of obesity can range from **lowered self-esteem to clinical depression**. Rates of anxiety and depression are three to four times higher among obese individuals.

[More infos about health consequences](#)



ECONOMIC COST OF OBESITY

The direct cost of diagnosis, treatment and management of obesity within national health systems has only been assessed in a few countries to date. Although the methodology varied considerably between studies, making it difficult to compare costs across countries and to extrapolate the results from one country to another, these estimates suggest that between **2-8% of the total sick care costs** in Western countries are attributable to obesity. This represents a major fraction of national health care budgets comparable with for example, the total cost of cancer therapy. The potential impact on health care resources in the less developed health care systems of developing countries is likely to be even more severe .

The cost of obesity to national health systems is high

Defined costs healthcare as BMI costs

Country	Year	Obesity (BMI)	Direct Costs	% National Health care costs
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US	1986	> 29	US \$39.3 billion	5.5%
US	1988	> 29	US\$44.6 billion	7.8%
Canada	1997	>27	CDN\$1.8 billion	2.4%
Australia	1989/90	> 30	AUD\$464 million	> 2%
Netherlands	1981-89	> 25		4%
France	1992	> 27		2%

The indirect costs of obesity that arise from for example, loss of wages and productivity would raise the total cost of obesity to even higher amounts. The IOTF are planning to investigate further the direct and indirect costs of obesity world-wide as part of its implementation plan .



BENEFITS OF WEIGHT LOSS

Weight loss in overweight and obese individuals **improves physical, metabolic, and endocrinological complications**, often dramatically. Weight loss in obese persons can also **improve depression, anxiety, psychosocial functioning, mood** and quality of life.

Intentional weight loss of 0.5-9.0 kg in overweight women with existing obesity related disease led in a 12 year study in the US, to a **20% fall in total mortality**, a **40-50% reduction in mortality from obesity related cancers**, and a **30-40% reduction in diabetes related deaths**.



OBESITY MANAGEMENT - Public Health Issue Health care service and physicians needs

Despite the high prevalence of obesity and improvements to our understanding of how the disease develops, there are **limited effective obesity management systems** in place in national health care services around the world. There is a wide variation in obesity care services between countries, with very few having a coherent and comprehensive range of services capable of providing the level of care required to effectively manage obese patients. This is in contrast to other chronic diseases such as diabetes and coronary heart disease where integrated care is frequently provided.

It is clear therefore that the rational development of co-ordinated health care services for the management of overweight and obese patients is needed in most countries. **Primary health care services should play the dominant role**, although hospital and specialist services are also required for dealing with more severe cases and the associated major life threatening complications. Clear communication between the different type of **health**

care service is also essential. At present, family doctors and other primary care health professionals appear to have incomplete, confused and occasional incorrect knowledge of obesity and nutritional issues.

Obesity is generally **not viewed as a serious medical condition by doctors**, and so many fail to advise and treat the majority of their obese patients. Obesity tends to be **treated only when a co-morbidity is present, rather than before the co-morbidity develops** or is exacerbated by the obese state.

There is an **urgent need** for improved training of all health care workers, not only to improve levels of knowledge and skills in obesity management strategies but also to help overcome the negative attitudes that many health professionals currently exhibit towards obesity management and the obese.

A systematic approach to management based on BMI and other risk factors

Assess overall health risk from BMI and other risk factors, e.g. waist circumference

OVERALL HEALTH RISK

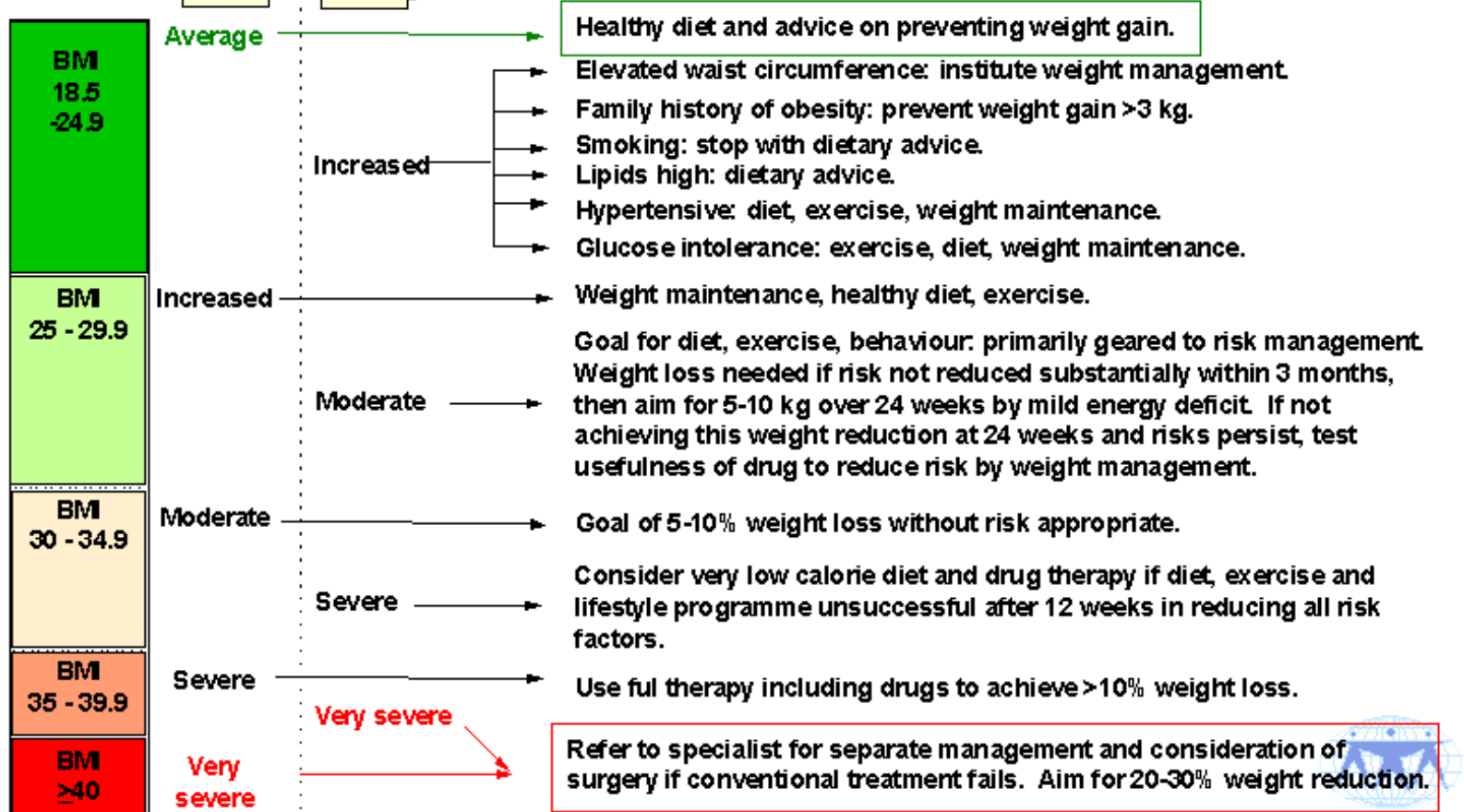
BMI

Additional risk factors ?

NO

YES

MANAGEMENT STRATEGIES



[More Infos about Obesity Management and medical treatment](#)

(Source: [International Obesity Task Force \(IOTF\)](#))

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