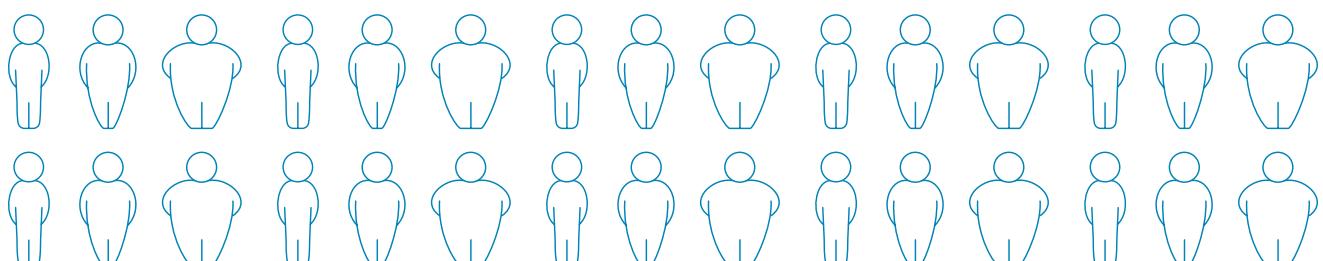


OBESITY AN UNDERESTIMATED THREAT

PUBLIC PERCEPTIONS OF OBESITY IN EUROPE



CONTENTS

Foreword from the European Association for the Study of Obesity (EASO)	3
Introduction	4
Summary of survey findings	6
Country findings	
 Belgium	11
 Denmark	13
 Finland	16
 France	18
 Germany	21
 Italy	22
 UK	24
Methodology	26
References	27

Conducted by independent strategic insight agency Opinium, in collaboration with the European Association for the Study of Obesity (EASO) and with the support of Medtronic.

May 2015.

OBESITY: AN UNDERESTIMATED THREAT

FOREWORD FROM THE EUROPEAN ASSOCIATION FOR THE STUDY OF OBESITY (EASO)

Obesity is one of the fastest growing threats to the health and wellbeing of our society. In some European countries as many as six out of ten adults are now classified as overweight or obese and by 2030 it is predicted that this could rise to as high as nine out of ten.

And yet, many people still do not understand the threat. They underestimate their own weight, misjudge the weight of others around them, and appear to have little knowledge of the consequences.

It is clear that the vast majority of people also regard obesity as a problem purely of personal lifestyle, rather than recognising that there are other underlying issues which society needs to address.

There are still a surprising number of people who do not realise that obesity is a gateway to many other diseases, including diabetes, cardiovascular disorders, cancer, and joint problems. With a rising number of people becoming overweight or obese, so the prevalence of these secondary conditions is snowballing, putting an ever increasing burden on society through higher health and social care costs, as well as by reducing Europe's healthy workforce.

For governments, policymakers and health authorities, the findings of this survey should be of great concern. It gives some fascinating insights into the perceptions of people across a selection of European countries. But it also confirms that much greater effort needs to be made to educate and inform people about the implications.

This latest survey follows a similar multi-country review and survey of policymakers conducted by EASO in 2014¹.

The previous survey looked at whether policymakers appreciated the extent of the epidemic, the drivers of obesity, and the tools and actions that need to be taken to make a difference. It likewise concluded that there is still clearly more to be done to raise awareness, particularly of the impact that obesity prevention and management programmes could have nationally.

EASO believes that overweight and obese individuals should have access to appropriate care to help them manage their weight and prevent later complications. There is an urgent need for better education to improve understanding and inform overweight or

obese people about the support and, if appropriate, treatments that can help them avoid conditions like heart disease.

Major policy change is therefore needed, and the first step must be improving awareness of the challenge of obesity.

INTRODUCTION

Survey across seven European countries reveals low public awareness of the adverse effects of obesity

Despite it being well known that obesity is becoming a growing problem in Europe, the general public is still largely unaware of its significance, or of the fact that many of them are already at risk.

This survey, conducted among 14,000 people in seven EU countries, has revealed a large number of people who are oblivious to some of the important health implications, the causes and treatment of obesity, and even of how levels of weight relate to themselves. Many also appear to be underestimating the need to take action.

Four out of five respondents who are obese described themselves as simply 'overweight' and a third of all those who were 'overweight' thought that their weight was 'normal'.

From a health perspective, nearly a quarter of all respondents did not realise that obesity can cause heart disease, diabetes and high blood pressure. Less than half recognised a connection with strokes and only 16% knew of the connection with certain types of cancer, even when prompted for the answers.

The survey, which was conducted in Belgium, Denmark, Finland, France, Germany, Italy, and the UK, is one of the most extensive obesity perception studies to have been undertaken and was conducted by the independent strategic insight agency Opinium, in collaboration with the European Association for the Study of Obesity (EASO) and with the support of Medtronic.

Obesity – the background

Obesity is defined by the World Health Organization as

"ABNORMAL OR EXCESSIVE FAT ACCUMULATION THAT MAY IMPAIR HEALTH."^{IV}

The most straightforward measure of the risk - and the most commonly used - is body mass index, or BMI. This is an indicator of weight relative to height. A healthy BMI range is 18.5 - 25 kg/m², an overweight person has a BMI of 25 - 30 kg/m², and someone with a BMI over 30 kg/m² is considered obese.

Being over a healthy weight is a major risk factor for many chronic conditions including diabetes, heart disease, and several types of cancer. Studies show that as someone's BMI increases, they can shorten their life expectancy by up to twenty years.^{VII}

Being obese frequently leads to other health conditions, placing a heavy burden on individuals, families and societies, both in terms of reduced quality of life and increased costs for the health and care systems.^{IV}

The problems and challenges linked to obesity are not being resolved - obesity is increasing across Europe. A recent study looking at obesity trends found that by 2030, the percentage of people in Europe who will be overweight or obese will range from 44% of the population in Belgium to as high as 90% of the population in Ireland.^V

By preventing or treating obesity, the risk of developing many life-threatening conditions can be reduced, and some like type II diabetes can be effectively cured.^I

^I 90% of people with diabetes who have obesity surgery no longer need medication after two years. Source: Ikramuddin, S. Roux-en-Y Gastric Bypass vs Intensive Medical Management for the control of type 2 diabetes, hypertension and hyperlipidemia: The Diabetes Surgery study Randomized clinical trial. JAMA 2013.

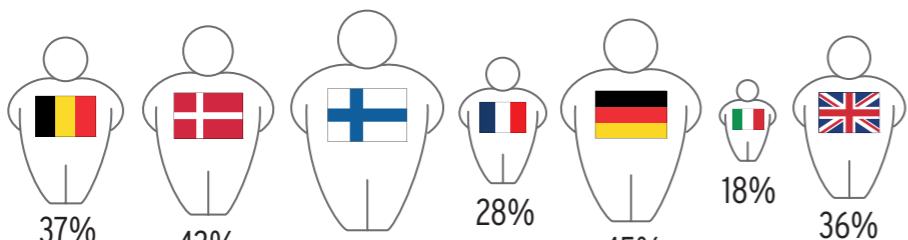
EUROPEAN PERCEPTIONS OF OBESITY

SUMMARY OF OVERALL SURVEY FINDINGS

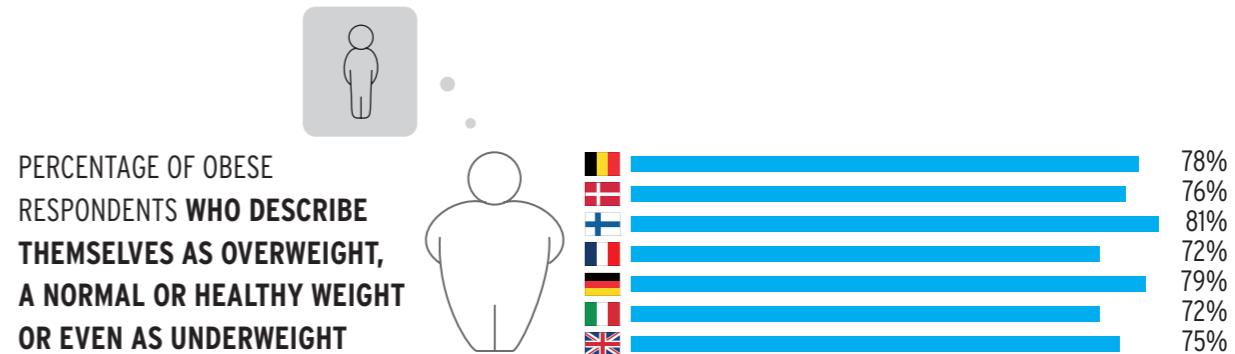
More than 14,000 survey respondents were asked a total of 28 questions about their perceptions of obesity. The responses indicate that despite growing concerns about obesity, there is still a widespread lack of awareness and lack of understanding among the general public.

A HIGH PROPORTION OF PEOPLE UNDERESTIMATE THEIR OWN WEIGHT

Many people misjudge their own weight, believing they are in a lower weight category than they are. **One in five people who would describe themselves as a normal or healthy weight are technically overweight, and a third of people who describe themselves as overweight are in fact obese.²** In Denmark and Finland, nearly half of people who thought they were overweight are in reality classified as obese.



PERCENTAGE OF PEOPLE WHO DESCRIBE THEMSELVES AS OVERWEIGHT WHO ARE ACTUALLY OBESE

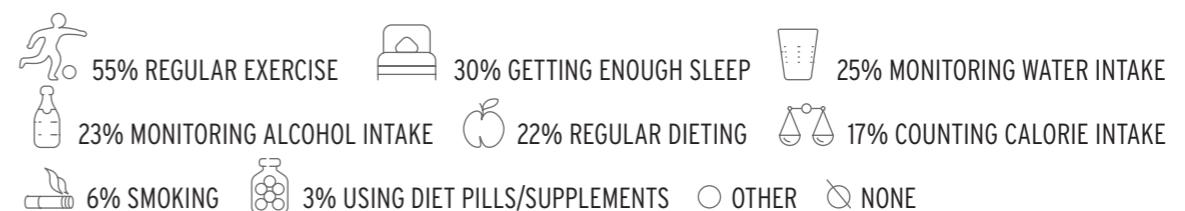


Misjudgement is even greater among those who are obese. Three out of four respondents who are technically obese described themselves as simply 'overweight'.

ALTHOUGH THEY UNDERESTIMATE THEIR WEIGHT, FEW PEOPLE ARE HAPPY WITH IT.

Less than half (45%) of respondents were happy with their current weight. But, despite this, **almost one in five (17%) take no action of any kind to control it.**

Regular exercise and diet control were thought as being the most effective means of weight control but only 17% of respondents monitor the calories they consume.

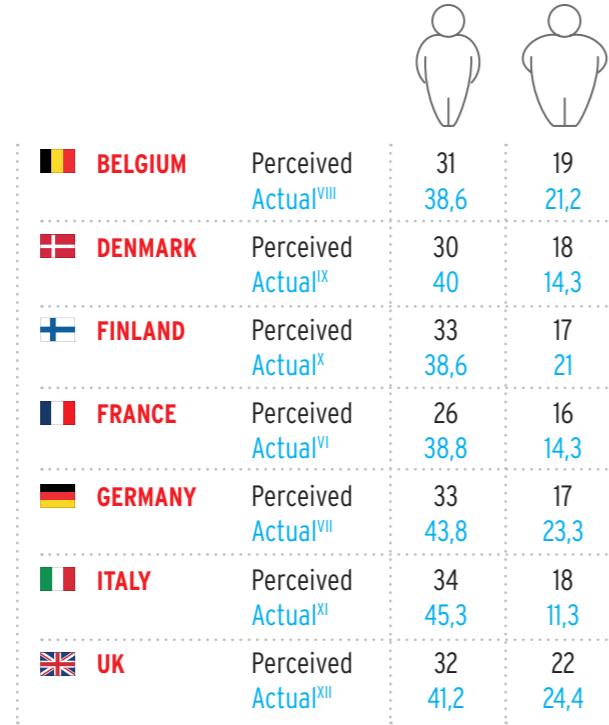


IT APPEARS DIFFICULT FOR PEOPLE TO DISTINGUISH BETWEEN THOSE WHO ARE OVERWEIGHT AND OBESE

The lack of awareness of what constitutes a 'healthy' weight is not limited to self-perception - the majority of respondents also underestimated how many people in their country are overweight.

In the countries included in the survey, the percentage of the adult male population who are either overweight or obese is known to be between 53% (France^{VI}) and 67% (Germany^{VII}). However, the estimates provided by respondents were lower by as much as 17%.

³ Respondents were asked whether they would describe themselves as underweight, a normal or healthy weight, overweight or obese. The reported weight category was compared with their BMI, calculated using the information they provided about their height and weight.



PERCEIVED VS ACTUAL LEVELS OF OVERWEIGHT AND OBESITY

When it comes to differentiating between those that are overweight and those who are obese, there was an even greater lack of distinction. Many people overestimated

the number of those who are obese but underestimated the numbers who are overweight. This suggests that being overweight is perceptually becoming a norm.

OBESITY AS A DISEASE IS NOT WIDELY RECOGNISED

Although there is growing medical recognition of obesity as a disease with genetic and psychological elements, this is not reflected in public opinion. In June 2014, the American Medical Association classified obesity as a "disease requiring a range of medical interventions to advance obesity treatment

and prevention".^{XIII} But less than half of people surveyed (46%) recognised it as such. Only a third of respondents identified obesity as a psychological or genetic disorder, whereas four out of five people (79%) described it as something caused by lifestyle choices.

THE CAUSES AND EFFECTS OF OBESITY ARE NOT WELL UNDERSTOOD

While there is a high level of awareness about the impact of diet and exercise in developing obesity, **the role of other lifestyle and medical factors is less widely understood.**

The major cause of obesity is consuming more calories than you burn off,^{XIV} and most people correctly identified poor diet (94%) and lack of physical activity (89%) as being major causes of obesity.

However, hormone problems, certain medicines, depression and emotional factors, quitting smoking, stress, and lack of sleep^{XV,XVI} can all contribute to becoming overweight or obese. Awareness of these factors is lower; with less than a quarter of people recognising that lack of sleep can be a contributing factor and just under half that stress plays a role.

OBESITY IS NOT RECOGNISED AS BEING AS DANGEROUS AS SMOKING

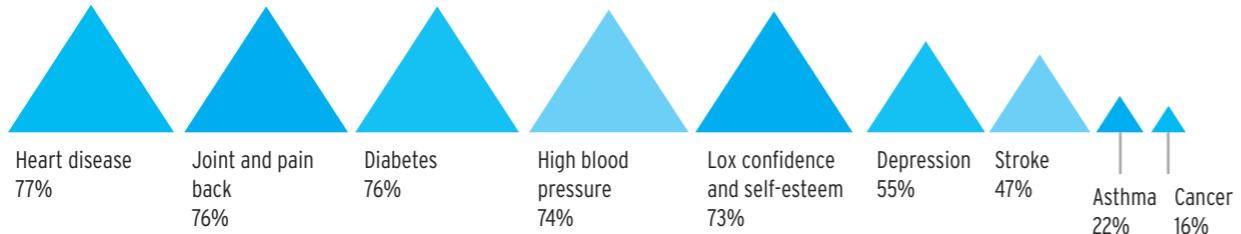
Despite believing that obesity can significantly shorten your life, **relatively few people recognised that obesity can be as dangerous as smoking.** More than half (56%) thought that smoking was the more dangerous of the two even though studies show that severe obesity can reduce your life expectancy by five to twenty years, compared to ten years for smoking.^{XVII}

The respondents most likely to recognise obesity as a greater threat to health than smoking are people aged over 55 (59%). Men are more likely to recognise this (58%) than women (53%).

Several studies have shown that obesity increases your risk of developing a wide

range of medical conditions, including heart disease^{XVIII}, high blood pressure (a major risk factor for stroke)^{XIX}, diabetes^{XX}, sleep apnoea (when someone stops breathing for a period when asleep)^{XXI}, asthma^{XXII} and several cancer types (including breast, colorectal, endometrial, kidney, oesophageal and pancreatic)^{XXIII}.

The effects that were relatively well known were heart disease (77%), diabetes (76%), and high blood pressure (74%). But there was **little awareness of others, particularly stroke (47%) and cancer (16%).** Obesity's toll on mental health is also not widely recognised. Only just over half of people questioned (55%) thought obesity would result in an increased risk of depression.



TREATING OBESITY

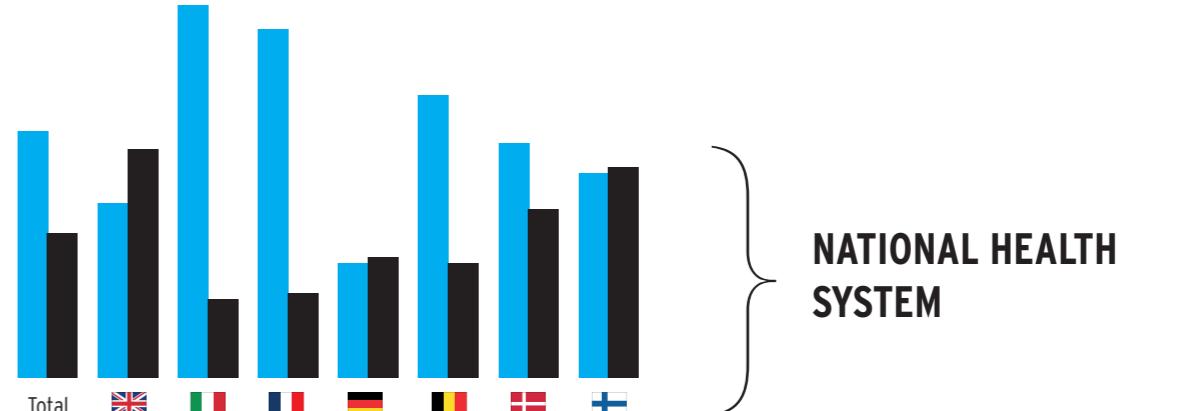
Most people thought that diet and exercise are the best cures for obesity. Exercise was cited as appropriate by 88% of respondents and diet by 85%.

However, studies have shown that weight loss through lifestyle change is often not enough to prevent associated health risks like cancer, and that people struggle to keep weight off as low-calorie diets can trigger biological mechanisms designed to prevent starvation.^{xxiv}

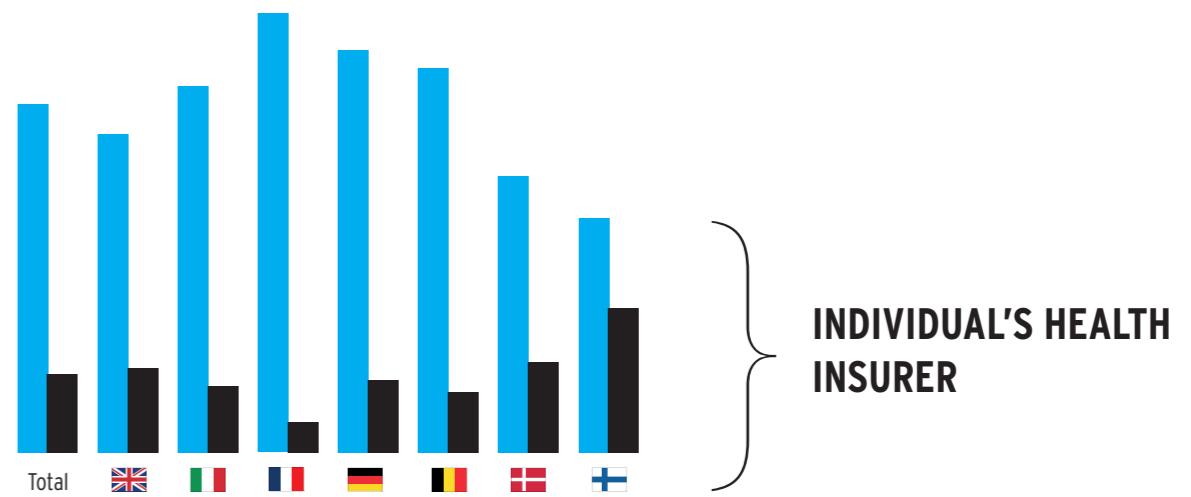
In most countries there was a high recognition **that surgery is an effective treatment for obesity**. Overall, 85% of respondents said

they were aware of it as a treatment although only just over a third (36%) said they would consider having surgery if they were obese. However, this increased to 58% of people if they had diabetes and realised that they would be cured as a result.

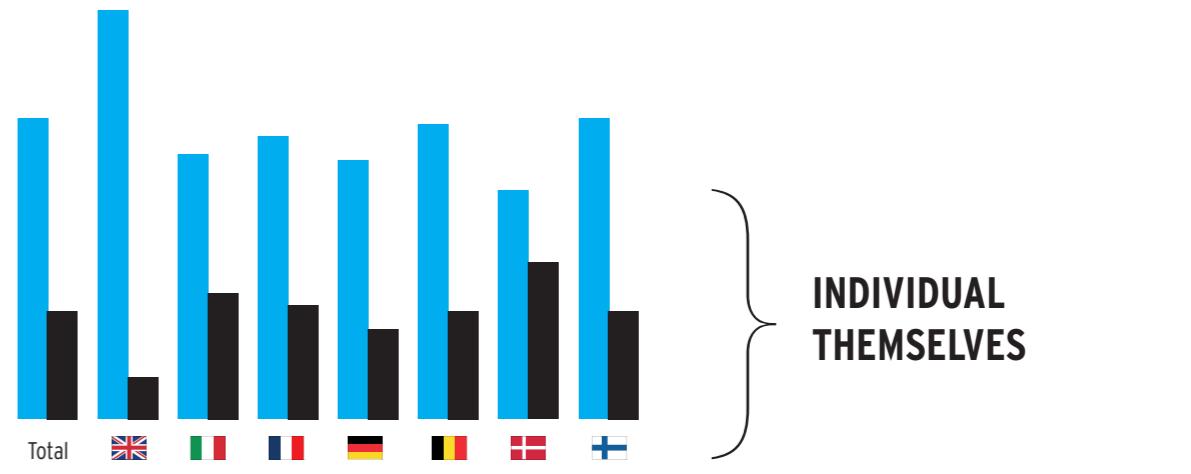
Research has shown that nine out of ten people with diabetes who have obesity surgery no longer need often-costly medication two years later.^{xxv} However, **few respondents recognised the value of this to health systems**. Only 41% of them thought the cost of surgery should be borne by national health services.



NATIONAL HEALTH SYSTEM



INDIVIDUAL'S HEALTH INSURER



INDIVIDUAL THEMSELVES

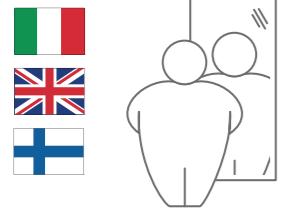
WHICH OF THESE SHOULD BE REQUIRED TO PAY FOR OBESITY SURGERY?

■ Agree ■ Disagree

VARIANCES BY COUNTRY

This survey provides some fascinating insights into people's perceptions. It also shows there are some significant differences in perceptions in different countries.

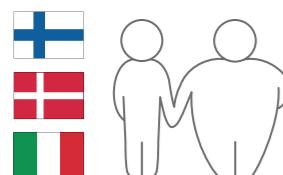
This includes the question of whether obesity is something that should be treated by a specialist or by a general practitioner (GP).



The proportion of people **CONSIDERING THEMSELVES EITHER OVERWEIGHT OR OBESE** is higher in Italy (45%), the UK (44%) and Finland (43%), and lower in Germany (36%) and France (38%).



HAPPINESS with personal weight is highest in Germany (55%) and lowest in Denmark (40%), the UK (41%), Finland (41%) and Italy (41%). It is also higher among men (48%) than women (41%).



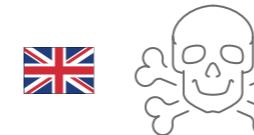
People in Finland (86%), Denmark (80%) and Italy (75%) are most likely to **KNOW SOMEONE WHO IS OBESE**. They are least likely in France (55%).



More people in Finland (93%), the UK (92%) and Denmark (84%) say that obesity **IS CAUSED BY LIFESTYLE CHOICES**.



More people in France (43%) consider obesity to be a **GENETIC DISORDER**. In the UK this is believed by only 25%.



Only in the UK was obesity recognised by most people as a **GREATER THREAT TO HEALTH THAN SMOKING**. This was recognised by 51% compared to 39% in France.



More people in France recognise **STRESS AS A CONTRIBUTING FACTOR** (55%) than in the UK (38%).



More people in France (81%) and Belgium (79%) think that **SURGERY IS SOMETIMES AN APPROPRIATE TREATMENT** for obesity than in the UK (63%). However, the UK has the second highest awareness of bariatric surgery (87%) as a treatment after Finland (97%).



Those in the UK are the most likely to suggest that individuals should be made **TO PAY FOR SURGERY THEMSELVES** (68%) compared with just 38% of those in Denmark.

COUNTRY FINDINGS



PUBLIC PERCEPTION IN BELGIUM

More than 2,000 adults, representative of national gender and age across Belgium, took part in the survey.

AS ELSEWHERE IN EUROPE, PEOPLE IN BELGIUM TEND TO UNDERESTIMATE THEIR WEIGHT AS WELL AS THE WEIGHT OF OTHERS IN THE COUNTRY.

54%

thought their weight was normal and healthy. **BUT** one in five of these were overweight³ and just over a third of those who thought they were overweight were obese.

OLDER PEOPLE WERE MORE IN DENIAL OF THEIR WEIGHT THAN YOUNGER ONES.

Only 4% of people over 55 described themselves as obese, but according to their Body Mass Index (BMI), nearly a quarter of them classified as such.

RESPONDENTS ALSO UNDERESTIMATED THE OVERALL WEIGHT CATEGORIES FOR THE BELGIAN POPULATION.

Whilst it is known that more than 60% of Belgian men are overweight or obese, the average estimated was only 50%.

OBESITY IS CONSIDERED TO BE A RESULT OF LIFESTYLE CHOICES.

77%

said that obesity is caused by lifestyle choices.

74% believe that a poor diet is the main factor.

46%

would describe obesity as a disease.

Even fewer recognise that obesity can be a genetic (37%) or psychological (28%) disorder.

43%

recognise that stress is a cause of obesity, but only 21% mentioned lack of sleep to be a contributing factor.

Women are more likely than men to identify stress (51% vs 35%) and lack of sleep (25% vs 16%).

YOUNGER RESPONDENTS TENDED TO SEE OBESITY AS MORE THAN SIMPLY A RESULT OF LIFESTYLE CHOICES.

More than half (54%) of people aged 18-34 described obesity as a disease, compared to 39% of people aged over 55. The younger group were also more likely to describe obesity as a genetic or psychological condition.

YOUNGER PEOPLE HAD A BETTER UNDERSTANDING

- of the role of stress (53% vs 35%)
- and lack of sleep (30% vs 13%).

MANY BELGIAN PEOPLE ARE UNAWARE OF SOME OF THE SERIOUS HEALTH RISKS LINKED TO OBESITY, BUT WOMEN ARE MORE INFORMED THAN MEN.

BELGIAN RESPONDENTS WERE NOT ALWAYS MINDFUL OF SOME OF THE SPECIFIC HEALTH RISKS CAUSED BY OBESITY:

ONLY

78%

were aware of an increased risk of heart disease.

51%

knew of an association with stroke.

15%

knew that obesity is linked to cancer.

75%

knew of the link with diabetes.

75%

knew of the link with depression.



BELGIAN WOMEN ARE MORE AWARE OF SOME OF THE HEALTH RISKS

associated with obesity than men, in particular those associated to mental health and wellbeing:

JOINT AND BACK PAIN - 81% compared to 73%

LOW CONFIDENCE AND SELF-ESTEEM - 78% compared to 61%

SLEEP APNOEA - 57% compared to 41%

DEPRESSION - 55% compared to 43%

³ Based on a BMI calculated from their self-reported height and weight.


BELGIANS HAVE A HIGHER THAN AVERAGE RECOGNITION THAT MEDICAL INTERVENTION,
SUCH AS SURGERY, IS SOMETIMES APPROPRIATE.

4/5

(79%) recognise that surgery
can sometimes be appropriate
compared to 71% across all
seven countries.

85%

think that diet control (85%) and exercise (86%) are usually suitable treatments.

65% OF RESPONDENTS THINK
OBESITY SHOULD BE TREATED BY A SPECIALIST
RATHER THAN A GENERAL PRACTITIONER.

More women than men think specialist treatment
is needed (70% vs 60%).

Younger people (adults under 35) are also more
likely than people over 55 to think specialist
treatment is appropriate (68% vs 59%).

35% OF RESPONDENTS WOULD
CONSIDER HAVING SURGERY IF THEY WERE OBESE.

However, 59% would consider surgery if they
developed diabetes and realised that surgical
intervention could cure it.

Respondents in the Luxembourg region of Belgium
were the least likely to consider surgery for
obesity (25%) but the most likely to consider
surgery if they had diabetes (68%).


RESPONDENTS ARE DIVIDED ON HOW TREATMENT FOR OBESITY SUCH AS SURGERY SHOULD BE FUNDED.

64% THINK THAT AN INDIVIDUAL'S
HEALTH INSURER SHOULD FINANCE SURGERY.

People who would describe themselves as obese
are more likely to think that health insurers
should fund such surgery (82%) than people
who think they are a healthy weight (60%).

49% THINK INDIVIDUAL PATIENTS
SHOULD HAVE TO PAY FOR THEIR OWN SURGERY.

*"WHAT
IS OBESITY?
A LACK
OF CONTROL."*

- BELGIUM SURVEY RESPONDENT.



PUBLIC PERCEPTION IN DENMARK

More than 2,000 adults, representative of national gender and age and from across the country in Denmark, took part in this survey.

 OF THE SEVEN COUNTRIES INCLUDED IN THE SURVEY,
PEOPLE IN DENMARK ARE THE MOST LIKELY TO UNDERESTIMATE THEIR OWN WEIGHT.
THEY ARE ALSO THE MOST LIKELY TO THINK EXERCISE IS THE BEST TREATMENT FOR OBESITY,
BUT THE LEAST LIKELY TO DO EXERCISE THEMSELVES.

57% considered their current weight to be normal and healthy. But almost a quarter of these (23%) were overweight.⁴

42% of those describing themselves as overweight are in fact obese.



FEW PEOPLE IN DENMARK ARE HAPPY WITH THEIR WEIGHT.
- just two in five respondents - and this is particularly true of people who are overweight (7%) and obese (3%).

THE PEOPLE QUESTIONED UNDERESTIMATED THE NUMBER OF OVERWEIGHT AND OBESE PEOPLE IN DENMARK AS A WHOLE.

Despite a high number of respondents (80%) saying they personally know someone who is obese, they estimated that just 48% of men are overweight or obese, compared to statistics showing that the national figure is over 54%.

⁴Based on a Body Mass Index (BMI) calculated from their self-reported weight and height.

 OBESITY IS BROADLY SEEN AS **CAUSED BY LIFESTYLE CHOICES**.

84%

of respondents think that obesity is caused by lifestyle choices, higher than the survey average of 79%.

60% think that the main factor is a poor diet.

35%

acknowledge obesity as a disease.

A similar number described obesity as a psychological disorder (36%) or a genetic disorder (31%).

2/5

respondents realise stress can contribute to obesity, and less than a third (32%) understood that lack of sleep is also a factor.

Older respondents (over 55) were significantly less likely than younger ones (18-34) to identify stress (58% vs 26%) or lack of sleep (38% vs 21%).

 PEOPLE IN DENMARK **UNDERESTIMATE THE DANGERS AND HEALTH RISKS OF OBESITY**.



LESS THAN HALF (46%) RECOGNISED THAT OBESITY CAN BE AS DANGEROUS AS SMOKING,
despite the fact that studies show both can decrease life expectancy by up to ten years.^{XXVI}

Awareness of the health risks associated with obesity seems to be patchy - while three quarters are aware of a link between obesity and diabetes or high blood pressure, fewer people know that being obese can increase your risk of:

HEART DISEASE - 67% // **DEPRESSION** - 55% // **STROKE** - 45% // **CANCER** - 14% // **ASTHMA** - 13%

**BEING OBESE SIGNIFICANTLY INCREASES YOUR RISK OF ALL OF THESE,
AS WELL AS 40% OF CERTAIN CANCERS.**^{XXVII}

HOW MANY PEOPLE CORRECTLY IDENTIFIED THE HEALTH RISKS ASSOCIATED WITH OBESITY?



- ✓ 79% - Low confidence/self-esteem
- ✓ 75% - Diabetes
- ✓ 71% - High blood pressure
- ✓ 68% - Joint and back pain
- ✓ 67% - Heart disease
- ✓ 57% - Tiredness
- ✓ 55% - Depression
- ✓ 45% - Stroke
- ✓ 41% - Sleep apnoea
- ✓ 14% - Cancer
- ✓ 13% - Asthma

PEOPLE BELIEVE OVERWEIGHT AND OBESE PEOPLE
SHOULD HAVE ACCESS TO SPECIALIST MEDICAL ADVICE AND CARE.

69%

think obesity needs specialist medical care, rather than treatment from a general practitioner.

72% of women think obesity needs specialist treatment, compared to 65% of men.

83%

think that exercise is almost always an appropriate treatment.

while only half (50%) think diet control is usually suitable - much lower than in the survey as a whole (85%).

JUST ONE THIRD OF RESPONDENTS WOULD CONSIDER HAVING SURGERY IF THEY WERE OBESE
- BUT MORE WOULD CONSIDER IT IF THEY HAD DIABETES WHICH SURGERY WOULD CURE.

34%

would consider having surgery if they were obese, slightly lower than the survey average of 36%.

Younger people are more likely to consider surgery (37% vs 33%).

This rises to 46% when people are asked whether they would have surgery if they developed diabetes and knew surgical intervention would cure it.

39%

thought that surgery for obesity should be funded by their national health service.

This varied between different regions of Denmark, from 45% in Sjælland to 33% in Nordjylland.

46% thought it should be funded by health insurers.

38% thought individual people should have to pay for their own surgery.

"OBESITY
IS A LIFESTYLE
DISEASE THAT
THE INDIVIDUAL
CAN MINIMISE
WITH AN EFFORT."

- DANISH SURVEY RESPONDENT.



PUBLIC PERCEPTION IN FINLAND

More than 2,000 adults from different parts of Finland, representative of age and gender, were asked about their perceptions of weight and obesity.

OBESITY APPEARS TO BE MORE VISIBLE IN FINLAND THAN IN OTHER COUNTRIES
IN THIS SURVEY. MORE PEOPLE SAY THEY PERSONALLY KNOW SOMEONE THEY WOULD DESCRIBE AS OBESIVE, DESPITE THE FACT THAT LEVELS OF OBESITY ARE LOWER IN FINLAND THAN IN SOME OF THE OTHER COUNTRIES IN THIS SURVEY.
 HOWEVER, FINNISH PEOPLE CONSISTENTLY UNDERESTIMATE THEIR OWN WEIGHT AND THE HEALTH RISKS ASSOCIATED WITH IT.

54% people who took part in the survey described themselves as being a 'normal' or 'healthy' weight.

However, a quarter (26%) are in fact overweight⁶. Nearly half (49%) of people who think of themselves as 'overweight' are actually obese.

WHEN ASKED TO ESTIMATE THE PERCENTAGE OF THE FINNISH POPULATION WHO ARE OVERWEIGHT OR OBESIVE, PEOPLE ALSO UNDERESTIMATED THE TRUE FIGURE.
 ON AVERAGE, SURVEY RESPONDENTS THOUGHT THAT 50% OF MEN ARE OVER A HEALTHY WEIGHT WHEREAS NATIONAL STATISTICS PUT THIS AT 60%.

MORE PEOPLE IN FINLAND SAY THEY PERSONALLY KNOW SOMEONE WHO IS OBESIVE THAN IN ANY OTHER COUNTRY – 86% COMPARED TO 70% OVERALL – DESPITE THE FACT THAT LEVELS OF OBESITY ARE HIGHER IN BELGIUM, GERMANY AND THE UK.

PEOPLE IN FINLAND ARE MORE LIKELY THAN OTHER COUNTRIES TO ASSOCIATE OBESITY WITH LIFESTYLE CHOICES.

93%

of respondents in Finland would describe obesity as caused by lifestyle choices, compared to 79% across all seven countries.

67% think a poor diet is the main factor.

38%

recognise that obesity is a disease or a genetic disorder.

Women are more likely than men to recognise obesity as a disease (42% vs 34%).



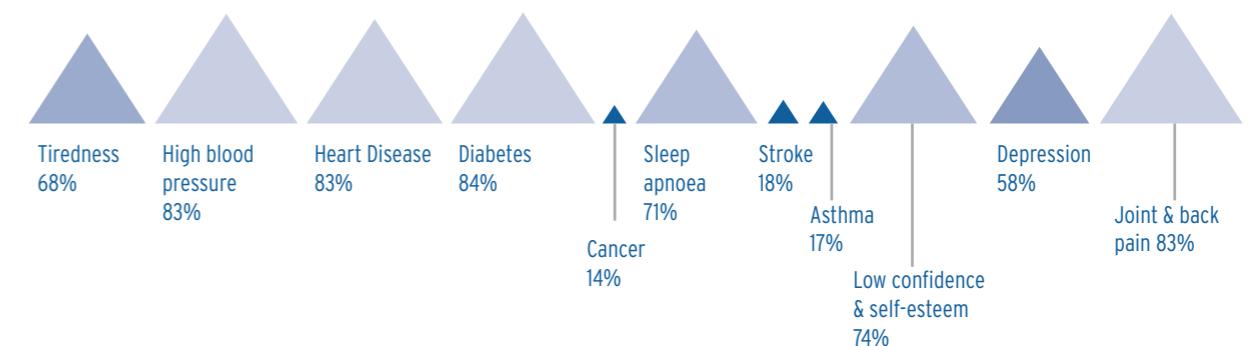
YOUNGER PEOPLE AND WOMEN WERE MORE AWARE THAN OLDER AGE GROUPS THAT STRESS AND LACK OF SLEEP CAN CONTRIBUTE TO DEVELOPING OBESITY:

63% of women compared to 45% of men recognised stress as a factor, and 56% of 18-35s compared to 37% of over 55s knew that lack of sleep plays a role.

OLDER PEOPLE IN FINLAND ARE MORE LIKELY TO UNDERESTIMATE THE DANGERS AND HEALTH RISKS OF OBESITY.

OLDER AGE GROUPS (OVER 55) ARE LESS AWARE OF THE HEALTH RISKS ASSOCIATED WITH OBESITY.

RATES OFrecognition of a health risk:



⁶Based on a Body Mass Index (BMI) calculated from their self-reported weight and height.

FEW PEOPLE IN FINLAND BELIEVED THAT OBESITY SHOULD BE TREATED BY A SPECIALIST.

**ONLY
37%**

thought obesity needs specialist medical care. Nearly half (49%) of people in Finland think obesity can be treated by a general practitioner.

75%

recognise that surgery can sometimes be an appropriate treatment for obesity.

However, people in Finland are divided when asked what the best treatment for obesity is:

49% think diet control.

Compared to 39% in the overall study.

31% identified surgery as the most effective treatment for morbid obesity.

Despite the emphasis on diet, fewer people in Finland than in the other countries diet regularly to control their weight:
- just 5%, compared to 22% overall.

1/3

(34%) think that surgery for obesity should be funded by the national health service.

This is higher among people who describe themselves as obese than among people who think they are a healthy weight (59% vs 26%).

More than half (59%) think that patients should be required to pay for their own surgery, higher than in the overall survey (50%).

ATTITUDES TO SURGERY VARY BETWEEN DIFFERENT FINNISH REGIONS.

1/3

people would consider having surgery for obesity.

This is lowest in the Aland Islands (20%).

64%

would consider having surgery if they had diabetes which could be cured through surgical intervention.

However, people in the Aland Islands were the most likely to consider surgery under these circumstances - (70%).

WHAT IS OBESITY?
IF YOU CAN'T TIE
YOUR SHOELACES,
YOU'RE TOO FAT.

- FINNISH SURVEY RESPONDENT.



PUBLIC PERCEPTION IN FRANCE

We questioned over 2,000 adults across France covering a nationally representative sample of age and gender.

RECOGNITION OF OBESITY AS A DISEASE IS HIGHEST IN FRANCE OUT OF THE SEVEN COUNTRIES IN THE SURVEY.

HOWEVER, THERE IS A WIDESPREAD UNDERESTIMATION OF THE BURDEN OF OBESITY AND ITS HEALTH IMPLICATIONS. PEOPLE IN FRANCE WERE THE LEAST LIKELY TO RECOGNISE THAT OBESITY CAN BE AS DANGEROUS AS SMOKING.

58% of respondents considered their weight to be normal or healthy whilst a third (34%) described themselves as overweight.

- > 16% of those who describe themselves as a 'normal' were overweight.⁷
- More than a quarter (28%) of those who considered themselves overweight were obese.

Respondents' estimates of the number of people who are overweight or obese in the whole country reflected the fact that **FEWER PEOPLE IN FRANCE ARE OVERWEIGHT THAN IN OTHER COUNTRIES**.

BUT THE REAL FIGURE WAS STILL UNDERESTIMATED:

On average, people believed that 42% of adult men are overweight or obese whereas national statistics put the figure at 53%.

MORE PEOPLE IN FRANCE THAN IN OTHER COUNTRIES IDENTIFIED OBESITY AS A DISEASE, BUT DIET IS STILL SEEN AS THE MAIN CONTRIBUTING FACTOR IN DEVELOPPING OBESITY.

65%

recognise that obesity is a disease, compared to 46% in the overall survey.

Recognition that obesity can be a psychological or genetic condition is also higher in France than other countries (40% vs 36% and 43% vs 34% respectively).

74%

believe that obesity is caused by lifestyle choices.

72% think that poor diet is the main factor.

MORE PEOPLE ARE AWARE OF THE ROLE OF STRESS IN CAUSING OBESITY THAN IN OTHER COUNTRIES:

55% VS 47%

(average across all countries)



Women are more likely to identify stress as a contributing factor (60%) than men (49%).

However, the impact of lack of sleep is less widely understood - 19% in France vs 24% overall.

PEOPLE IN FRANCE WERE THE MOST LIKELY TO UNDERESTIMATE THE DANGER OF OBESITY.

MORE PEOPLE IN FRANCE THAN IN OTHER COUNTRIES UNDERESTIMATED THE RISK TO HEALTH OF OBESITY.

Only 39% recognised that obesity can be as dangerous to your health as smoking, compared to 44% overall.

The only group of people who considered obesity more dangerous than smoking were those who described themselves as obese (52%).

⁷ Based on a BMI calculated from their self-reported height and weight.

MANY PEOPLE IN FRANCE APPEAR UNAWARE THAT BEING OBESE SIGNIFICANTLY INCREASES RISK OF A WIDE RANGE OF CARDIOVASCULAR AND OTHER CONDITIONS, INCLUDING DIABETES, DEPRESSION, STROKE AND CANCER.

**ONLY
67%**

were aware that obesity can lead to diabetes, and just 16% knew that obesity can cause cancer.

WHO IS MORE AWARE ABOUT HEALTHS RISKS BETWEEN OLDER AND YOUNGER RESPONDENTS?



RESPONDENTS IN FRANCE ARE DIVIDED ON WHICH TREATMENT IS THE MOST EFFECTIVE FOR MORBID OBESITY.

89%

of respondents think that diet control is almost always an appropriate treatment for obesity.

81% think that surgery can sometimes be an appropriate treatment and 66% think medication can sometimes be suitable.

36%

believe diet control is the best treatment for morbid obesity.

while 34% identify surgery as the most effective treatment.

35%

would consider having surgery if they were obese.

This is lowest in the Ile-de-France region (32%).

75%

OF PEOPLE SURVEYED BELIEVED THAT OBESITY SHOULD BE TREATED BY A SPECIALIST RATHER THAN A GENERAL PRACTITIONER.

This is highest in the Ile-de-France region (80%), and lowest in the South West and East of the country (71%).

Women are also more likely to recognise the importance of specialist treatment than men (81% vs 70%).

58%

OF RESPONDENTS THINK THAT TREATMENT SUCH AS SURGERY SHOULD BE FUNDED BY THE NATIONAL HEALTH SERVICE.

This is lowest in the Ile-de-France region (55%), and highest in the central region of France (66%).

73% think that treatment such as surgery should be funded by an individual's health insurer.

47%

think that obese people should be required to pay for their own surgery.

This is highest in the Ile-de-France region (50%), and lowest in the South West (33%).



PUBLIC PERCEPTION IN GERMANY

The survey was conducted among 2,000 adults across Germany who were representative of region, gender and age.

 PEOPLE IN GERMANY ARE MORE LIKELY TO UNDERESTIMATE THEIR WEIGHT CATEGORY THAN IN SOME OTHER COUNTRIES AND THEY ALSO SIGNIFICANTLY UNDERESTIMATE THE COUNTRY'S OVERWEIGHT AND OBESITY PROBLEM.

24% of those who consider themselves as being of normal weight were in fact 'overweight'.

45% of those who considered themselves as 'overweight' were 'obese'.⁸



PEOPLE WHO ARE OVERWEIGHT OR OBESE ARE NOT HAPPY ABOUT IT.

ONLY 14% of those who believe themselves to be overweight are happy with their weight and only 5% of those who describe themselves as obese are happy with their weight.

Asked to estimate the number of people in Germany who suffer from being overweight or obese, **respondents estimated that:**
 - 17% of adult men suffer from obesity
 - 33% from being overweight.

National statistics show that:
 - 23% are classified as obese
 - 67% are obese or overweight.

73%

of respondents believed that obesity is caused by lifestyle choices.

66% consider a poor diet as being the main contributing factor.

56%

agree that obesity is a disease.

However, only 34% of respondents see it as 'a psychological disorder' and 32% as a genetic disorder.

42%

identified stress as being a cause.

Only 19% consider 'a lack of sleep' to be a cause.

In both cases it is considered higher by women than men (45% vs 38% and 23% vs 15%).



THE MAJORITY OF THOSE QUESTIONED (56%) DID NOT RECOGNISE THAT OBESITY CAN BE AS DANGEROUS AS SMOKING. However, medical statistics show that severely obese people can reduce their life expectancy by up to ten years.^{xxviii}

1/2

OF RESPONDENTS

consider **HEART DISEASE** as the biggest obesity related threat to health, wellbeing and lifestyle.

33%

high blood pressure.

29%

diabetes.

⁸ Based on a Body Mass Index (BMI) calculated from their self-reported weight and height.

77% recognised that obesity can cause diabetes.

12%

were aware of a link between cancer and obesity.

66% recognised that being obese increases your risk of stroke.



IN REALITY, BEING OBESE INCREASES YOUR RISK OF HEART DISEASE, HIGH BLOOD PRESSURE, DIABETES, STROKE, DEPRESSION, CANCER AND SEVERAL OTHER SERIOUS HEALTH RISKS.

Non-medical conditions were also identified as effects of obesity in Germany:

LOW CONFIDENCE AND SELF-ESTEEM - 72%

LIMITED OPPORTUNITIES FOR WORK/CAREER ADVANCEMENT - 67%

87% believe that **diet control** is an appropriate treatment.

67% believe that **medication** is an appropriate treatment.

84% believe that **exercise** is an appropriate treatment.

72% believe that **surgery** is an appropriate treatment.

JUST OVER A THIRD OF ALL RESPONDENTS WOULD CONSIDER HAVING SURGERY IF THEY WERE OBESE.



TREATMENT FOR OBESITY SHOULD BE CARRIED OUT BY SPECIALISTS.



ALMOST THREE QUARTERS OF PEOPLE IN GERMANY (72%) THINK THAT SPECIALISTS RATHER THAN GENERAL PRACTITIONERS (GPs) SHOULD CARRY OUT THE TREATMENT FOR OBESITY.

> MORE WOMEN THINK THAT OBESITY NEEDS SPECIALIST TREATMENT - 75% vs 68%.

> YOUNGER RESPONDENTS (18-34 YEAR OLDS) THINK THAT OBESITY SHOULD BE TREATED BY SPECIALISTS - 75% vs 69% of those aged 55.

**36% of women
31% of men**

would consider having bariatric surgery if they were obese.

This figure rises to 40% of those who already consider themselves obese and to 60% among people if they were to develop diabetes and knew that it would cure it.

67%

thought that their health insurer should fund such surgery.

slightly higher than the average of the seven countries surveyed (58%).



PUBLIC PERCEPTION IN ITALY

For this survey, we questioned over 2,000 adults in Italy who were representative of the country's age, gender and regional makeup.

PEOPLE IN ITALY WERE THE LEAST LIKELY TO UNDERESTIMATE THEIR OWN WEIGHT AMONG SURVEY RESPONDENTS.
HOWEVER, PARTICULARLY MEN UNDERESTIMATE THE DANGERS OF OBESITY.

50% of those who participated in the survey described themselves as being of normal or healthy weight.

42% of them described themselves as being overweight.

AROUND 10% OF PEOPLE WHO DESCRIBED THEMSELVES AS HEALTHY UNDERTIMATED THEIR WEIGHT AND WERE ACTUALLY OVERWEIGHT.⁹

However, unlike many other countries where most people had underestimated rather than overestimated their weight, around 18% of respondents who described themselves as overweight would be considered normal for their height.

NEVERTHELESS, A SIMILAR PROPORTION (18%) OF THOSE WHO DESCRIBED THEMSELVES AS OVERWEIGHT WERE OBESE.

PEOPLE IN ITALY ALSO MORE ACCURATELY ESTIMATED THE PROPORTION OF PEOPLE IN THE COUNTRY WHO ARE OVERWEIGHT AND OBESE.

The average estimation was that 52% of adult men are overweight or obese.

slightly less than the actual number of 56%.

PEOPLE IN ITALY ARE MORE LIKELY TO RECOGNISE OBESITY AS A DISEASE THAN IN OTHER COUNTRIES SURVEYED BUT STILL SEE OBESITY AS CAUSED BY LIFESTYLE CHOICES.

62% OF RESPONDENTS RECOGNISED OBESITY AS A DISEASE, COMPARED TO 46% IN THE OVERALL STUDY.

Women were more likely than men to describe obesity as a disease (69% vs 53%).

Younger people (aged under 35) were also more likely to recognise obesity as a disease than people over the age of 55 (69% vs 56%).

61% SAID THEY THOUGHT OBESITY IS CAUSED BY LIFESTYLE CHOICES.

Men are more likely to associate obesity with lifestyle choices (66% vs 57%).

67% think a poor diet is the main factor.

Women are more likely than men to be aware that stress can contribute to the development of obesity (60% vs 47%).

44% DESCRIBED OBESITY AS A PSYCHOLOGICAL DISORDER, COMPARED TO 36% IN THE OVERALL SURVEY.

52% of people under 35 described obesity as a psychological disorder, compared to just 37% of respondents over 55.

Younger people were also more likely to identify obesity as a genetic disorder (41% vs 34%).

⁹ Based on a BMI calculated from their self-reported height and weight.


IN ITALY, PEOPLE UNDERESTIMATE THE HEALTH RISKS OF OBESITY,
BUT WOMEN ARE MORE AWARE OF THE DANGERS THAN MEN.

RESPONDENTS IN ITALY ARE ALMOST EQUALLY DIVIDED ON WHETHER SMOKING OR OBESITY
IS THE GREATEST RISK TO HEALTH:

51% OBESITY vs 49% SMOKING

 Women are more likely to think
obesity is riskier than smoking
(55% vs 45%).

 Men are more likely to think
smoking is the greater danger
(58% vs 42%).

WOMEN ARE ALSO CONSISTENTLY MORE AWARE OF THE HEALTH RISKS LINKED TO OBESITY:

DIABETES - 73% compared to 66% - **DEPRESSION** - 59% compared to 43%

OVERALL, HOWEVER, PEOPLE IN ITALY ARE LESS AWARE THAN IN OTHER COUNTRIES
THAT OBESITY CAN CAUSE:

DIABETES - 70% vs 76% - **JOINT AND BACK PAIN** - 69% vs 76% -
HIGH BLOOD PRESSURE - 64% vs 74% - **STROKE** - 43% vs 47% - **CANCER** - 14% vs 16%


IN ITALY THERE IS GREATER RECOGNITION OF **OBESITY**
AS A CONDITION REQUIRING SPECIALIST TREATMENT.

**IN ITALY, OBESITY IS ALMOST EXCLUSIVELY (90%)
SEEN A CONDITION REQUIRING SPECIALIST TREATMENT,
AND THERE IS GREATER SUPPORT FOR MEDICAL INTERVENTION
SUCH AS MEDICATION AND SURGERY.**

65% of respondents think that medication
is usually appropriate, compared to
22% overall.

& MORE said they would consider surgery
if they were obese than in
other countries surveyed (48%
compared to 36%).

This was particularly high among people aged
between 35 and 54 (56%).

33% think diet is the best treatment for morbid obesity, while just a quarter (25%) identified surgery
as the most effective approach.

VIEWS ON DELIVERING OBESITY TREATMENT VARY REGIONALLY BETWEEN THE NORTH AND SOUTH OF ITALY.

NORTH EAST

65%

NORTH WEST

47%

SOUTH

45%

People are more likely to consider having surgery for obesity in the south than the north of the country.

61%

60%

65%

More respondents in the South thought that the national health system should fund treatment such as surgery.

43%

46%

39%

People are more likely to think an individual should pay for their own surgery in the North than in the South.



OLDER RESPONDENTS IN ITALY ARE MORE LIKELY TO ACTIVELY
MANAGE THEIR RISK OF DEVELOPING OBESITY.

**OLDER AGE GROUPS INDICATE THAT THEY ARE MORE ACTIVE
IN MANAGING THEIR RISK OF DEVELOPING OBESITY.**

When asked what action they take to control their weight, people aged over 55 were more likely to indicate that they diet regularly and exercise, as well as monitor their alcohol intake.

"OBESITY
IS A DISEASE
AND IS SADLY
UNDERESTIMATED
AS SUCH."

- ITALIAN SURVEY RESPONDENT.



PUBLIC PERCEPTION

IN THE UNITED KINGDOM

We questioned 2,000 adults from across the UK in a sample representative of age and gender.

PEOPLE IN THE UK SIGNIFICANTLY UNDERESTIMATE THEIR WEIGHT, AND ARE THE LEAST LIKELY AMONG RESPONDENTS FROM SEVEN COUNTRIES ACROSS EUROPE TO IDENTIFY OBESITY AS A DISEASE. YOUNGER RESPONDENTS (AGED UNDER 35) ARE MORE LIKELY THAN THOSE OVER 55 TO BE AWARE OF THE CAUSES OF OBESITY BUT LESS LIKELY TO UNDERSTAND THE HEALTH RISKS.

52% of respondents considered their weight to be normal and healthy.

38% described themselves as overweight.

> **21%** of people who described themselves as being a 'normal' weight were technically overweight.¹⁰

> **36%** of those who consider themselves to be overweight are in fact obese.

PEOPLE ALSO UNDERESTIMATED THE NUMBER OF OVERWEIGHT AND OBESE PEOPLE AS A WHOLE IN THE UK.

SURVEY RESPONDENTS THOUGHT
32% of men are overweight
22% of men are obese

NATIONAL STATISTICS SHOW THAT
41% of men are overweight
24% of men are obese

9/10

people questioned (92%) said that obesity is caused by lifestyle choices.

compared to 79% in the survey as a whole.

ONLY

18%

recognised obesity as a disease, compared to 46% in the survey overall.

This is particularly low among older respondents, with only 14% of people over 55 identifying obesity as a disease, compared to 22% of people aged 18-34.

Younger respondents were also more likely to describe obesity as a psychological condition (40% vs 32%).

PEOPLE IN THE UK ARE LESS LIKELY THAN IN OTHER COUNTRIES TO IDENTIFY STRESS (38% VS 47%) AND LACK OF SLEEP (18% VS 24%) AS CONTRIBUTING FACTORS TO OBESITY.

However, younger respondents are more likely to be aware that obesity can be caused by stress (43%) and lack of sleep (26%).

ONLY

1/4

of respondents in the UK identified obesity as a genetic disorder compared to 34% in other countries.

65% think that poor diet is the main contributing factor for developing obesity.

¹⁰ Based on a BMI calculated from their self-reported height and weight.

 PEOPLE IN THE UK ARE MORE AWARE OF THE HEALTH RISKS THAN AVERAGE IN THE SURVEY, BUT ARE STILL GENERALLY UNAWARE OF MANY SERIOUS RISKS.

BEING OBESE INCREASES YOUR RISK OF DEVELOPING MANY SERIOUS CONDITIONS INCLUDING DIABETES, HEART DISEASE, HIGH BLOOD PRESSURE (A MAJOR RISK FACTOR FOR STROKE), DEPRESSION AND CANCER.

However, there are low levels of awareness of many of these risks, but people in the UK are more aware than in many other countries.

For example, 83% knew of a link between obesity and diabetes, compared to 76% overall, and 81% recognised the increased risk of heart disease or high blood pressure, compared to 77% and 74% overall.

61% were aware that obesity increases risk of stroke.

ONLY 30% knew that obesity can cause cancer.

although these awareness levels are higher than in the survey overall (55% and 16% respectively).

DESPITE BEING MORE AWARE OF THE CAUSES OF OBESITY, YOUNGER RESPONDENTS WERE LESS LIKELY TO IDENTIFY THE MANY HEALTH RISKS ASSOCIATED WITH IT.

 **+55** People over 55 were more likely to identify diabetes, heart disease and high blood pressure as risks associated with obesity.

 **ONLY -35** 52% of people under 35 knew of a link between obesity and stroke, compared to 63% of people over 55.

HEALTH RISKS OF OBESITY AGAINST AGE GROUP OF RESPONDENT

	18-34	25-54	+55
DIABETES	76%	84%	86%
HEART DISEASE	75%	83%	85%
HIGH BLOOD PRESSURE	74%	82%	84%
JOINT AND BACK PAIN	73%	82%	84%
LOW CONFIDENCE AND SELF-ESTEEM	75%	79%	79%
TIREDNESS	62%	70%	73%
DEPRESSION	63%	69%	66%
STROKE	52%	66%	63%

 PEOPLE ARE DIVIDED AS TO WHETHER OBESITY SHOULD BE TREATED BY SPECIALISTS.

PEOPLE IN THE UK THINK THAT OBESITY SHOULD BE TREATED BY:

A SPECIALIST (43%) **GENERAL PRACTITIONER (39%)** **18% ARE NOT SURE**

69% believe that **medication** is appropriate treatment.

63% believe that **surgery** is appropriate treatment.

47% **THINK DIET IS THE MOST EFFECTIVE TREATMENT.**

Older respondents were also more aware of the benefits of treatments such as surgery, with 30% believing surgery to be an effective treatment for obesity compared to 20% of 18-34 year olds.

 **32%**  **28%**

WOULD CONSIDER HAVING SURGERY IF THEY WERE OBESE.

This rises to 63% of men and 57% of women when people are asked if they would consider having surgery if they developed diabetes which could be cured by surgical intervention.



MOST PEOPLE IN THE UK THINK PEOPLE SHOULD HAVE
TO PAY FOR SURGICAL TREATMENT THEMSELVES.

PEOPLE WERE MOST LIKELY TO THINK THAT INDIVIDUALS SHOULD PAY FOR THEIR OWN SURGERY (68% COMPARED TO 50% OF PEOPLE IN ALL COUNTRIES IN THE SURVEY).

Respondents in the UK were the most likely to think that the National Health Service should not be required to fund surgery (38% vs 24%).

People over 55 were less likely to think patients should pay for their own treatment than younger respondents (66% vs 73%).

METHODOLOGY

This survey on perceptions of obesity was conducted by the independent strategic insight agency Opinium. Just over 2,000 people in each of the selected countries were included. Results have been weighted to nationally representative criteria on age and gender.

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|--|----------|--|
| | Belgium: | 2,003 adults (of which 961 men and 1,042 women) were surveyed between 3 - 11 December 2014 |
| | Denmark: | 2,005 adults (of which 982 men and 1,023 women) were surveyed between 3 - 15 December 2014 |
| | Finland: | 2,005 adults (of which 962 men and 1,043 women) were surveyed between 9 - 19 February 2015 |
| | France: | 2,005 adults (of which 962 men and 1,043 women) were surveyed between 3 - 9 December 2014 |
| | Germany: | 2,000 adults (of which 980 men and 1,020 women) were surveyed between 3 - 9 December 2014 |
| | Italy: | 2,025 adults (of which 972 men and 1,053 women) were surveyed between 3 - 10 December 2014 |
| | UK: | 2,000 adults (of which 971 men and 1,029 women) were surveyed between 5 - 16 December 2014 |
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ABOUT OPINION RESEARCH LLP

Opinium Research is an award winning strategic insight agency built on the belief that in a world of uncertainty and complexity, success depends on the ability to stay on the pulse of what people think, feel and do. Established in 2007, Opinium works with organisations across multiple geographies, using a wide variety of research methodologies to uncover commercial and social insights which deliver robust findings to help guide clients towards accurate and strategic business and policy decision making.

ABOUT MEDTRONIC

Medtronic is a leading global medical device company, whose medical technologies help make it possible for millions of people to resume everyday activities, return to work, and live better and longer. Medtronic's mission is to alleviate pain, restore health, and extend lives, and to do this it produces a range of products designed to help chronic disease patients improve their lives. This includes medical technology used in obesity surgery.

ABOUT THE EUROPEAN ASSOCIATION FOR THE STUDY OF OBESITY (EASO)

The European Association for the Study of Obesity (EASO) (www.easo.org) is the leading European scientific and practice-based professional membership association in its field, with networks in over 30 countries. EASO facilitates and engages in actions that prevent and combat the epidemic of obesity. It contributes to high-level European and national scientific consultations, hosts the annual European Congress on Obesity, has dynamic and active topic specific Task Forces and Working Groups, and coordinates obesity education across Europe.

