

## The Obesity Pandemic

Contrary to popular belief, the obesity problem is not limited to wealthy developed nations, nor is it limited only to adults. Much of the world, it seems, is in the grip of an obesity pandemic, current figures are staggering and are just the tip of the iceberg. Although obesity has been on the increase over the past two decades, it is only recently that governments have begun to acknowledge the enormity of the problem. In a bid to counteract its effects, many governments have begun a series of activity-based public health initiatives.

### How do we classify obesity?

Human beings require body fat to store energy and to shield us from the cold—women generally have more body fat than men.

There are many ways to measure weight and body fat. These include skin fold measures (the thickness of fat under the skin), waist circumference, waist to hip circumference ratios and weight for height tables. However, one of the most widely used measures is Body Mass Index (BMI). BMI is used to determine the approximate weight of a person in relation to their height.

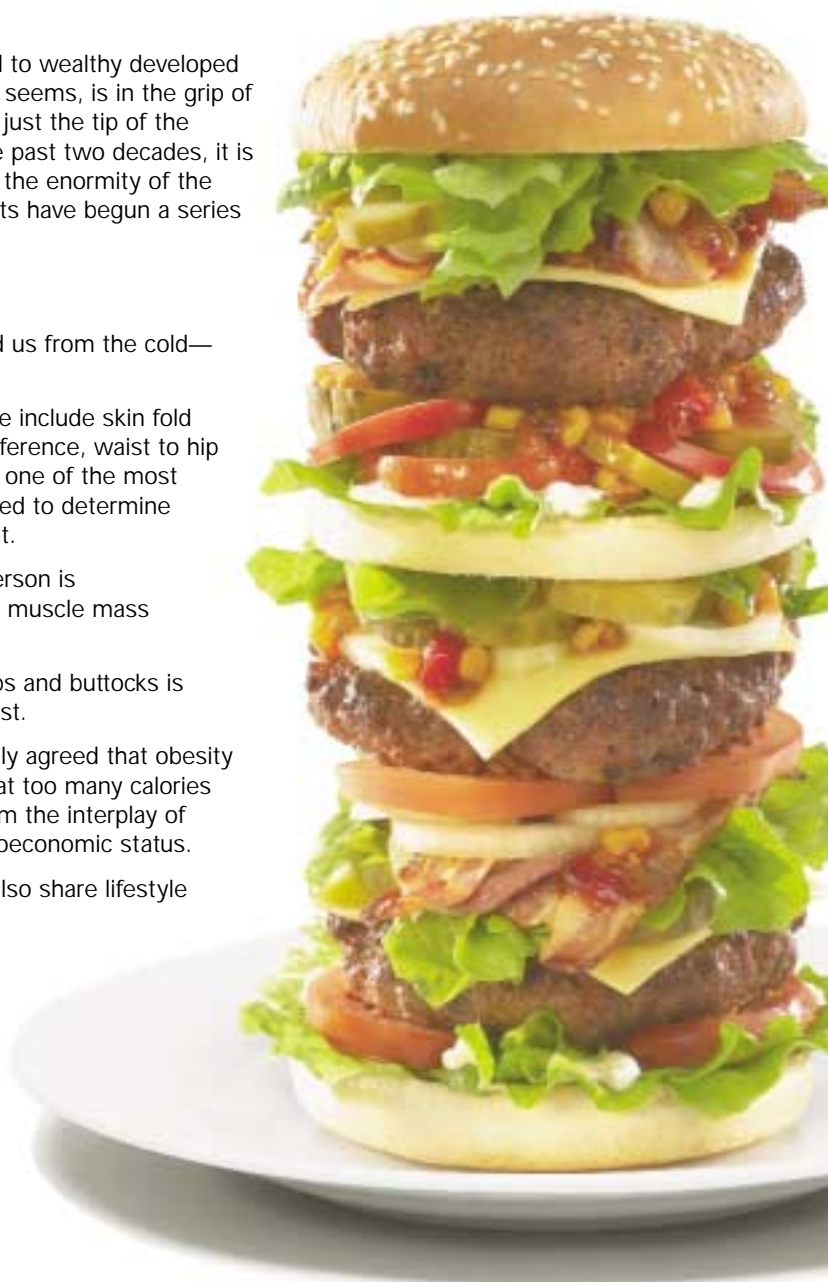
BMI is a quick and easy indicator to determine whether a person is overweight or not (BMI does not take into consideration the muscle mass of the person).

Body fat distribution is also important. Fat located on the hips and buttocks is generally regarded as 'safer' than fat located around the waist.

While much has been written about the causes, it is generally agreed that obesity is the result of an energy imbalance. Quite simply, people eat too many calories and get too little exercise. However, body weight results from the interplay of genes, metabolism, behavior, environment, culture and socioeconomic status.

Obesity does tend to run in families, and although families also share lifestyle and dietary habits, there is evidence of a hereditary link.

One study found that the weight of adults adopted as children is closer to the weight of their biological parents than of their adoptive parents. This indicated that the person's genetic makeup had more influence on the development of obesity than the environment of the adoptive family.<sup>1</sup> However, researchers James Hill and Frederick Trowbridge point out that this does not explain the huge increase in obesity levels worldwide.



## From the Editor



Over the last two decades, obesity has become one of the world's major health problems. Surprisingly, the problem is not confined to wealthy countries—it is increasing dramatically across developing nations too. As the frightening increase in obesity among children shows, the problem doesn't just affect adults either. Clearly, it has become an issue of critical and growing importance.

This issue of Snooze Newz tackles the concerns surrounding obesity. We highlight: What is the scale of the problem? Is obesity genetically or behaviorally determined? What other factors play a part? What are the options for treatment? We also reveal the latest facts and figures, which are mind blowing.

We explore surgery options, called bariatric surgery, for severely obese people to lose weight. If dietary and exercise regimes fail to bring about sufficient weight loss to improve a person's health, these surgical procedures can be used to provide control over diet and to help control eating habits. Patients still have to watch what they eat to ensure that they are having a balanced diet and that their daily requirements are being met.

We interview Dr. Mike Jones, a British-trained General Practitioner (GP or Primary Care Physician, PCP) now practicing in Perth, Western Australia, providing his perspective on the obesity problem.

On a slightly different tack, we are pleased to bring you our regular stories from CPAP users and Maskerade.

Mike Doyle tells us how he was 'woken up to sleep' and diagnosed with sleep apnea. He includes some good advice for parents, and highlights the importance of the GP (PCP) in recognizing the condition and making the first referral.

As always, we welcome your feedback. For more information you can visit us on our website at [www.resmed.com](http://www.resmed.com).

*Lisa MacKenzie*  
Editor

## Body Mass Index (BMI)

*continued from page 1*

They note, 'Despite obesity having strong genetic determinants, the genetic composition of the population does not change rapidly. Therefore, the large increase in obesity must reflect major changes in non-genetic factors.'<sup>2</sup> In other words, individual behavior in terms of diet and activity builds on this genetic predisposition.

Some illnesses, such as Cushing's disease, and some drugs, such as some antidepressants and steroids, may also lead to obesity and weight gain.<sup>3</sup>

The development of an obese population is not an overnight phenomenon. The obesity epidemic has been growing rapidly, particularly over the past 20 years. So what has happened in the world to cause people to change their eating and activity habits so dramatically?

The World Health Organisation (WHO) takes a global view of the problem, attributing the obesity epidemic to an increase in sedentary lifestyles and high-fat, energy-dense diets, particularly as people move to cities.<sup>4</sup>

This view is supported by data from the National Center for Chronic Disease Prevention and Health Promotion,<sup>3</sup> which identifies a number of contributing

environmental factors. The Center argues that the environment has broadened food options so that there is wide access to pre-packaged foods, fast food restaurants and soft drinks, which are all high in fat, sugar and calories. Portion size has also increased—people are eating more during a meal, and are often unaware of it.

Technology—such as computers, cars, lifts and escalators—increases efficiency, but has a negative impact on activity. The amount of physical activity people do in their daily life has significantly decreased. Twenty-four hour television, computer games and so on have had a huge impact in making children more sedentary.

In underdeveloped countries, WHO reports that obesity is 'the result of a series of changes in diet, physical activity, health and nutrition.' This is collectively known as the 'nutrition transition.' They note that cities offer a greater range of food choices, generally at lower prices. Urban work often demands less physical exertion than rural work. More women are working away from home, and may be too busy to cook. In 1900 just 10% of the world's population inhabited cities; today that figure is nearly 50%.<sup>4</sup>

$$\text{BMI} = \frac{\text{weight in kg}}{(\text{height in m}^2)}$$

### BMI Classification

≤ 18.5	Underweight
18.5–24.9	Normal range
25.0–29.9	Overweight
30.0–34.9	Obese
≥ 35.0	Morbidly obese

The health consequences of obesity are nothing short of astonishing, with a long list of health risks. The three most serious risks are heart (cardiovascular) disease, Type 2 diabetes, and obstructive sleep apnea (OSA), which are all considered to place a person at high or absolute risk of death.<sup>5</sup> Other risks include high blood pressure, stroke, joint disease, gallstones, gynecological irregularities and some types of cancers. Women who gain more than 20 lbs (9 kgs) after age 18 double their risk of postmenopausal breast cancer; the risks of colon, endometrial, kidney and gallbladder cancer have been shown to rise with weight gain.<sup>5</sup>

A weight gain of as little as 10 lbs (4.5 kgs) increases a person's risk of heart disease, while high blood pressure, the leading risk factor for stroke, is twice as common in obese adults. Gaining 11–18 lbs (4.9–8.1 kgs) doubles a person's risk of developing Type 2 diabetes.

The most worrying aspect is the growing problem of obese children. Obesity rates have doubled among children and tripled among adolescents since 1980.<sup>3</sup> Children suffer from a particular set of obesity-related problems including

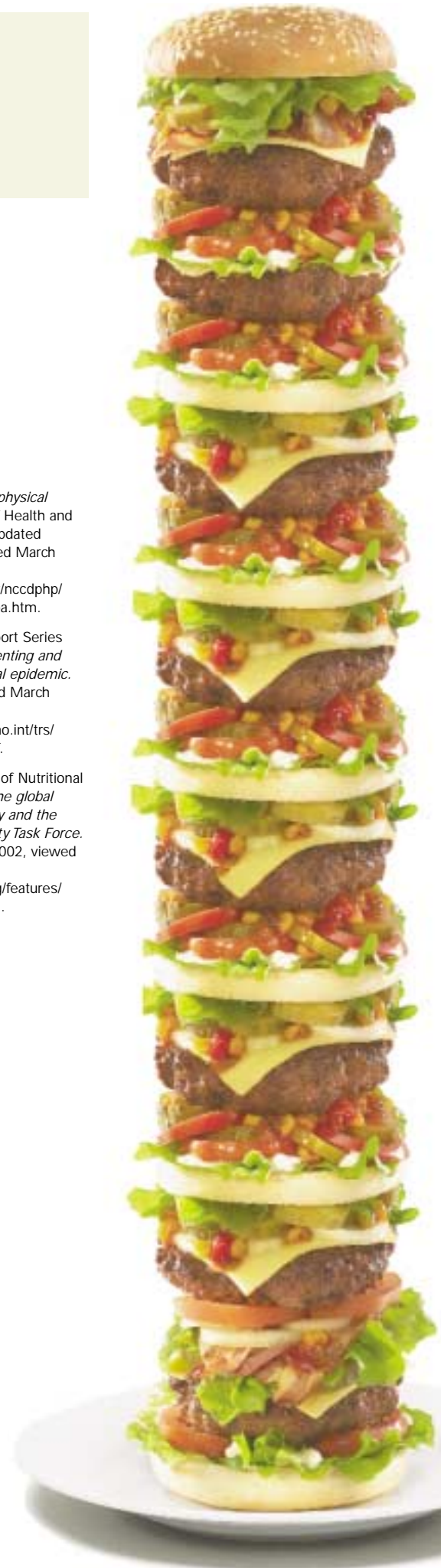
asthma, sleep apnea, high blood pressure, poor mental health and eventually, adult obesity. Type 2 diabetes, previously considered an adult disease, is also increasing dramatically in children and adolescents.

Clearly, urgent action is required. In their report *Obesity: Preventing and Managing the Global Epidemic*, WHO concludes, 'Global epidemic projections for the next decade are so serious that public health action is urgently required. Analyses show that merely concentrating on children and adults who have high BMI and associated health problems will not stem the escalating numbers of people entering the medically defined categories of ill health. It is thus essential to develop new preventive public health strategies, which affect the entire society.'<sup>4</sup>

1. United States Dept. of Health and Human Services. *Overweight and obesity: At a glance*. Updated July 2004, viewed March 2005, [http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact\\_glance.htm](http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_glance.htm).
2. Hill J, Trowbridge F. Childhood obesity: future directions and research priorities. *Pediatrics*, 1998 Supplement: 571.
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*good nutrition and physical activity*. US Dept of Health and Human Services, updated August 2003, viewed March 2005, [http://www.cdc.gov/nccdphp/pe\\_factsheets/pe\\_pa.htm](http://www.cdc.gov/nccdphp/pe_factsheets/pe_pa.htm).

4. WHO Technical Report Series 894. *Obesity: preventing and managing the global epidemic*. WHO, 2000, viewed March 2005, [http://whqlibdoc.who.int/trs/WHO\\_TRS\\_894.pdf](http://whqlibdoc.who.int/trs/WHO_TRS_894.pdf).
5. International Union of Nutritional Sciences (IUNS). *The global challenge of obesity and the International Obesity Task Force*. Updated October 2002, viewed March 2005, <http://www.iuns.org/features/obesity/obesity.htm>.



# An Interview with Dr. Mike Jones



*Dr. Mike Jones is a British-trained (University of Birmingham) GP (or PCP) who came to Australia in 1972 and has been in practice here ever since.*

*Dr. Jones has been heavily involved in medical politics, sitting on numerous committees. He is a former state President and national Vice President of the Australian Medical Association (AMA) and has also been involved in working with the government in reviewing future directions for general practice. Dr. Jones publishes a monthly newsletter containing general advice about common illnesses and preventive care, for patients. Dr. Jones has consulting rooms in the Hills district outside Perth in Western Australia.*

## Have you noticed a change in the number of patients presenting to your clinic with obese and obesity-related health issues?

It has not been a dramatic change, however, over the years there are more people who appear to be overweight. I think there is more concern among the general public and they are more interested in trying to lose weight than they used to be. So yes, there is an increase in obese and overweight people presenting, but there is also more public awareness of the problem and therefore some degree of desire to do something about it. Perhaps the biggest concern is the increasing incidence of overweight children.

## So why is there an increase in the number of overweight children you are seeing in your practice?

Lack of exercise is the greatest issue, with diet obviously playing a role. In my mind, obesity is about diet and exercise. There is no question that children nowadays have access to so much junk food, and increased sedentary lifestyles, such as sitting in front of the television, watching videos or DVDs, playing video games and interacting with the internet.

## What proportion of obese/morbidly obese patients suffer from a disease or hormonal imbalance that directly causes their obesity?

The percentage is incredibly small. In fact, off the top of my head I can't

think of any cases where there has been a major medical cause or disease for obesity that I have seen recently. It's very rare.

## What percentage of patients presenting to your clinic would you classify as obese?

In the adult population that I see, I would say 30–40% are overweight with 3–4% being obese. However, significant numbers of the overweight are moving towards the obese category. So my gut feeling is that we are seeing a shift to the heavy end of the spectrum.

## How do you assess a patient's suitability for different treatment methods?

The first aspect is to get them to appreciate that their weight is a major factor in their problem. This can be difficult. It's a bit like cigarette smoking; some people present knowing that they have to give up smoking or, in this case, lose weight; however, others need to be made aware of what the problem actually is. For example, they complain of pain in the knees and hips or symptoms of high blood pressure (hypertension); however, the root cause is not the pain, it's what is causing the presenting symptom, which can be linked back to obesity. The first task is for the doctor to persuade the patient to recognize that weight loss is critically important for their good health, and that can be quite a battle sometimes.

Unfortunately we do live in a society where we expect instant solutions to our problems. It's so easy to seek a

pharmaceutical solution to fix things. These people need a lot of education, support, and a lot of hard work.

## What treatment methods do you recommend?

Treatment needs to be tailored to individual people and a lot depends upon their motivation. I will quite often send somebody to a dietician, as you may well need someone to go through the patient's diet with a fine-tooth comb to see exactly what he or she is eating. However, it's usually only the motivated patient that will agree to do this. Many patients are convinced that they don't overeat but we know that it's a simple equation—energy in versus energy out—and if they are taking more onboard than they are using, we know they are going to get bigger. Diet and exercise are the keys, and the patient has to want to participate in this!

With the amount of information that is readily available nowadays, many people have tried all the fad diets and when these fail, they usually see a doctor to seek further advice or treatment. There is a lot of concern in the medical community about what harm these fad diets could potentially do to people.

There are surgical procedures that offer hope for the seriously obese and these can offer a practical solution to the management of weight loss. My approach is to assess the patient and then implement treatment. I am a great advocate of exercise first and then focus on diet. After that you have to consider other options such as surgery.

# Don't Frighten the Children

By Mike Doyle



## Why do diets tend to fail?

Because diets tend to create an artificial situation; these diets are typically only for a short time, but what happens long-term? They go back to their usual routine and they regain the weight. So what I tend to promote is, "whatever program you go on, it should be for the rest of your life." It is easier and more successful to make a small permanent change to your eating and exercise habits, than a dramatic change for a short period of time. The key is actually behavioral change.

## Is sleep apnea a major issue for obese people?

Ten years ago I probably would never have had sleep apnea on my radar screen. Now I routinely ask people who are obese or who have hypertension about their sleep habits. One of the common presentations in the GP (PCP) world is the patient who is tired all the time. The first question I ask is "do you snore?" because we now know what a common problem sleep apnea is. However, although I may be aware of sleep apnea, there are many GPs that aren't aware. It's a bit of a vicious circle. When you have sleep apnea you are tired all the time; the doctor says "I want you to exercise more;" but you are too tired to do it. So it is a self-compounding problem. That's why we need to increase the awareness. There is significant evidence now to highlight sleep apnea as a cause of hypertension, and we know that the benefits of treating sleep apnea in heart disease are staggering. We need to ensure this is understood across all primary care physicians.

I have always been a heavy sleeper (I slept through the hurricane that decimated the south east of England in the late 1980s).

However, after emigrating from England to Australia in 1990, my snoring became the talk of the neighbors, being audible to them, and rattling a windowpane or two in the process.

Later, on a trip to a country client, I almost fell asleep at the wheel and was only woken (and saved) by the noise of the gravel on the road's hard shoulder.

My wife was the first real 'awakening' when she remarked that I stopped breathing in my sleep.

Back then, in the early 90s, sleep apnea was barely recognized by the medical profession. Fortunately I was recommended to a GP (PCP) who was familiar with the symptoms, and she referred me to a sleep specialist.

I was wired with a mobile system and the specialist agreed that there was sufficient evidence for me to go in for a night's sleep test at a Sleep Clinic.

The tests identified that I stopped breathing forty times per hour. The next step was my first encounter with ResMed and the purchase of a Sullivan™ 3 device (which is still in working order).

Upon seeing the apparatus my wife remarked that I had better forewarn our three

young children as they might get a bit of a shock coming into the bedroom and finding daddy connected to a tube.

My response was to pretend to them that I was an 'Elephant' as I wandered around the house with the nasal mask and tube. This certainly did the trick.

Children should be introduced gently to the idea of a parent being on a CPAP device and not to fret about any danger to their parent. In fact let them know being on CPAP "is good news because mummy or daddy are going to be around for a lot longer."

I spent another night at the Sleep Clinic, where they increased the pressure on the CPAP device and identified the need for a chin strap as my mouth was opening in the night, affecting the quality of my sleep.

I am now the very happy owner of a ResMed AutoSet Spirit™ with a full face mask, together with a chin strap. It is a great improvement. Ironically, my wife found it harder to adjust to the new machine as it was so quiet—she had become conditioned to the noise from my previous CPAP device.

I look forward to future developments from ResMed. In the meantime I awake each morning and, most of the time, my clever machine's screen tells me that I have had a 'good' night's sleep.

## Factors Contributing to Obesity

### Diet

- Only about one in four US adults eats the recommended five or more servings of fruit and vegetables daily.<sup>1</sup>
- Fewer than 20% of young people eat the recommended five or more servings of fruit and vegetables daily.<sup>2</sup>

### Inactivity

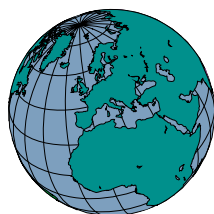
- More than 60% of US adults do not get enough physical activity to provide health benefits.<sup>2</sup>
- More than 30% of young people in high school do not regularly engage in vigorous physical activity.<sup>2</sup>

### Diabetes connection

- 61% of diabetes costs are attributable to obesity.<sup>3</sup>
- Diabetes prevalence:
  - India—35.5 million people.<sup>3</sup>
  - Tonga—12% of men and 18% of women; a further 20% at risk of developing Type 2 diabetes.<sup>3</sup>
  - The Middle East—17–20%.<sup>3</sup>
  - Barbados—is considered the amputation center of the world.<sup>3</sup>

1. National Center for Chronic Disease Prevention and Health Promotion. *At a glance: Physical activity and good nutrition: essential elements to prevent chronic diseases and obesity*. Updated August 2004, viewed March 2005, <http://www.cdc.gov/nccdphp/dnpa>.
2. United States Dept. of Health and Human Services. *Overweight and obesity: what you can do*. Updated July 2004, viewed March 2005, <http://www.surgeongeneral.gov/topics/obesity>.
3. Rigby N, James P. The obesity campaign view of diabetes prevention. *Diabetes voice* 2003;48 (Special Issue).

# Startling facts and figures from An Overweight Population



## Worldwide

- More than 1.1 billion people are overweight.<sup>1</sup>
- 320 million of them are obese.<sup>1</sup>
- Since 1995, there has been a 60% increase in the number of obese people (from 200 million to 320 million).<sup>2</sup>
- The obesity epidemic is not restricted to industrialized societies. In developing countries it is estimated that over 115 million people suffer from weight-related problems.<sup>2</sup>
- Obesity has increased by as much as 75% in parts of the developing world.<sup>3</sup>
- Obesity is related to socioeconomic groups. Figures show that adolescents from poor families are twice as likely to be overweight as adolescents from wealthier families.



## North America

- 58 million Americans (one third of the population) are obese.<sup>4</sup>
- 9 million, or 4.7% of the population, are morbidly obese.<sup>4</sup>
- The overweight trend has been steadily rising:
  - 47% of the population between 1976-80
  - 56% between 1988-1994
  - 65% between 1995-2002.
- The increase in weight and obesity cuts across all ages, racial and ethnic groups, and both genders.<sup>5</sup>
- Ethnic minorities are affected disproportionately—40% Mexican American women and 50% black American women have a BMI above 30.<sup>6</sup>
- In Canada, obesity among children aged 7–13 tripled between 1976 and 1996.<sup>2</sup>



## Middle East

- In parts of the Middle East overweight and obesity rates have increased by 50%.<sup>1</sup>

1. Rigby N, James P. The obesity campaign view of diabetes prevention. *Diabetes voice* 2003;48 (Special Issue).
2. World Health Organization. *Controlling the global obesity epidemic*. Updated April 2003, viewed March 2005.
3. International Union of Nutritional Sciences (IUNS). *The global challenge of obesity and the International Obesity Task Force*. Updated 2000, viewed March 2005.
4. National Center for Health Statistics. *Prevalence of overweight and obesity among adults: United States 1999*. Updated July 2004, viewed March 2005.
5. US Dept. of Health and Human Services. *Overweight and obesity: At a glance*. Updated July 2004, viewed March 2005.
6. Royal College of Physicians (UK). *College statements: response to 'choosing health': overweight and obesity*. Updated July 2004, viewed March 2005.

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## Europe

- Obesity has increased 10–15% in the past decade.<sup>3</sup>
- In the UK, a report from a working party of the Royal College of Physicians, estimates that:<sup>6</sup>
  - more than 50% of the adult population are either overweight or obese
  - in 2002, 70% of men and 63% of women were overweight or obese.
- The UK obesity rate has tripled over the past 20 years—21% of men and 23.5% of women are obese.<sup>1</sup>
- Finland and Germany have obesity rates similar to the UK. Even higher levels can be found in Greece and Eastern Europe, particularly in the older population.<sup>1</sup>
- In Germany, obesity in boys aged 7–14 increased from 10% to 16.3% between 1975 and 1995, while the percentage for girls increased from 11.7% to 20.7%.<sup>1</sup>

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## Asia and Pacific Nations

- There is convincing evidence that many Asian populations are particularly prone to the health risks of central obesity (excess fat in the abdominal region) regardless of BMI.<sup>1</sup>
- Japanese researchers suggest a prevalence of obesity of 20%.<sup>1</sup>
- Many Pacific Islands, such as Tonga, have overweight and obesity prevalence rates of 60-80% among men and women.<sup>1</sup>

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<http://www.who.int/nut/obs.htm>

ity Task Force. Updated October 2002, viewed March 2005, <http://www.iuns.org/features/obesity/obesity.htm>.

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# Bariatric Surgery

Severe obesity is associated with significant heart and lung disease. In its worst form it's called Pickwickian Syndrome after Joe in *The Pickwick Papers* by Charles Dickens, who had both obstructive sleep apnea (OSA) and obesity hypoventilation syndrome (in which patients have problems exchanging oxygen and carbon dioxide even when they are awake).

When obesity is severe enough to cause diseases or conditions it's considered to be morbid obesity. Obesity is classified using the BMI measure. Refer to the BMI classifications on page 3.

There are so many conditions associated with morbid obesity that they start at the top of the head and end at the tip of the toe, affecting nearly every single organ in between!

They include diseases and conditions such as stroke, high blood pressure, OSA, obesity hypoventilation syndrome, elevated cholesterol levels, heart disease, asthma, diabetes, chronic lower back pain and degenerative disease of the hips and knee joints. Then there are conditions such as reflux, oesophageal cancer, non-alcoholic liver disease, increased incidence of colon and kidney cancers, urinary stress incontinence, and endocrine problems in women such as polycystic ovary syndrome. This list demonstrates that morbid obesity can be a terribly debilitating problem, not to mention the impaired quality of life, depression, and decreased employment that so often accompany it.

Weight loss can now be surgically induced to correct these severe and life-threatening risks of obesity. The term 'Bariatric Surgery' is used to describe weight loss with surgery. *Baros* is from the Greek word meaning weight.

If dietary and exercise regimes fail to bring about sufficient weight loss to improve a person's health, these surgical procedures can be used to provide control over diet and to help control eating habits, as the primary goal is to reduce the amount of food intake necessary to make the patient feel full. Patients still have to watch what they eat to ensure that they are having a balanced diet and that their daily requirements are being met.

Candidates for surgery are people with a BMI of 40 or greater, regardless of any other underlying condition, or people with a BMI of 35 to 39 who have significant underlying conditions such as high blood pressure or diabetes.

There are three basic types of surgery. There are purely 'restrictive procedures' which are most popular in Europe and Australia.

One example is stomach banding, where the stomach is made much smaller and the outlet is restricted, typically by using an adjustable band. After this procedure the patient eats much less, gets full quickly and loses the desire to over eat.

Then there are the combined restrictive and poor absorption procedures. These operations involve creating a very small stomach pouch, bypassing the stomach and parts of the small intestine.

The third type of procedure, which is the most challenging and extensive operation, is considered mainly a mal-absorption (poor absorption) operation. This involves the removal of more than two-thirds of the stomach and rerouting of the small intestine to the region of the large intestine.

Of these three types of operations, the one with the lowest risk is the band; however, it seems to be associated with the lowest level of weight loss and correction of other conditions, although it is still quite successful. In comparison, the third type of operation, which carries the most extensive weight loss, has increased post-operative risks and nutrient absorption issues. The most common surgeries are the first two types.

While there are very few dietary risks with the band procedure, dietary requirements still need to be maintained. With stomach bypass there is the risk of vitamin and mineral deficiencies. Vitamin B12, iron and calcium supplements are needed.

In addition, patients who undergo the most extensive procedures will have to counteract the poor absorption effects on fats by taking fat-soluble vitamin supplements, including vitamins A, D, E and K.

Based on an interview for ResMedica by Harvey J. Sugerman, MD, FACS



# Promising Approaches for Preventing Obesity

- 9.1% of US annual health spending (\$78.5 billion) is attributable to overweight and obesity. By comparison, between 6.4% and 14.4% is spent on smoking.<sup>1</sup>
- Regular physical activity is a key part of any weight loss effort.<sup>2</sup>
- Reducing the time spent watching television appears to be effective for treating and preventing obesity.<sup>2,3</sup>
- Increased physical activity for overweight patients reduces many of the illnesses associated with obesity, helps maintain weight loss, and helps prevent weight gain.<sup>2,3</sup>
- A weight loss of 5–10% can do much to improve health by lowering blood pressure and cholesterol levels.<sup>4</sup>
- Research has shown that a 5–7% weight loss can prevent Type 2 diabetes in people who are at risk by 58% over a three-year period.<sup>5</sup>
- A 10% weight loss will reduce an overweight person's lifetime medical costs by \$2,200–\$5,300.<sup>2</sup>
- The lifetime medical costs of five diseases and conditions (hypertension, diabetes, heart disease, stroke, and high cholesterol) among moderately obese people are \$10,000 higher than among people at a healthy weight.<sup>2</sup>
- If 10% of adults began a regular walking program, \$5.6 billion in heart disease costs could be saved per year.<sup>2</sup>
- Every dollar spent on physical activity programs for older adults with hip fractures results in a \$4.50 return.<sup>2</sup>

1. Wolf AM, Colditz GA. Current estimates of the economic cost of obesity in the United States. *Obesity research*. 1998;6(2):97-106.
2. National Center for Chronic Disease Prevention and Health Promotion. *Chronic disease prevention: preventing obesity and chronic disease through good nutrition and physical activity*. US Dept of Health and Human Services, updated August 2003, viewed March 2005, [http://www.cdc.gov/nccdphp/pe\\_factsheets/pe\\_pa.htm](http://www.cdc.gov/nccdphp/pe_factsheets/pe_pa.htm).
3. United States Dept. of Health and Human Services. *Physical activity fundamental to preventing disease*. June 20, 2002, viewed March 2005, <http://aspe.hhs.gov/health/reports/physicalactivity/index.shtml>.
4. United States Dept. of Health and Human Services. *Overweight and obesity: health consequences*. Viewed March 2005, [http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact\\_consequences.htm](http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_consequences.htm).
5. United States Dept. of Health and Human Services. *Diabetes: a national plan for action report*. December 2004, viewed March 2005, <http://aspe.hhs.gov/health/NDAP/NDAP04.pdf>.

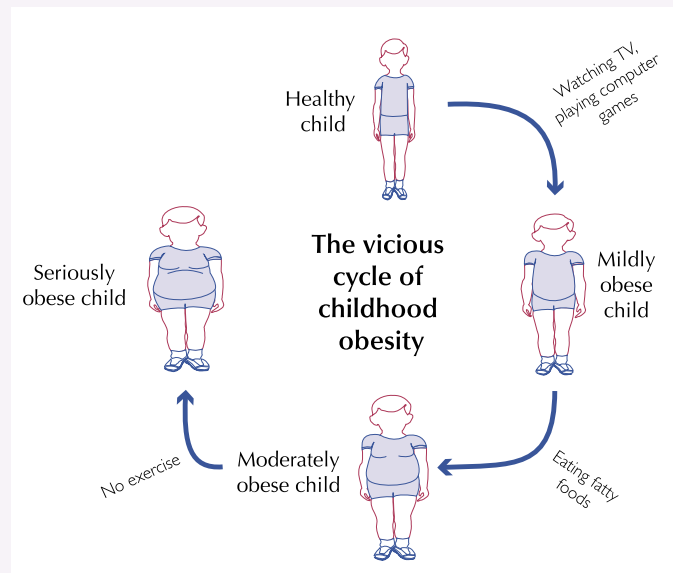
## New look

From using your feedback we have redesigned our look.

We hope you like it!



# Children and Obesity



- The percentage of overweight children aged 6–11 in the US rose from 6.5% in the 1970s to 15.3% in 2000.<sup>1</sup>
- In 1995, there were an estimated 18 million children around the world under the age of five classified as overweight.<sup>2</sup>

Health consequences for obese children include:<sup>1,3</sup>

- asthma
- sleep apnea
- high blood pressure
- Type 2 diabetes
- poor mental health—various studies report increased incidences of low self-esteem, loneliness, sadness and nervousness—leading to smoking and consumption of alcohol in later years.

1. Center for Health and Health Care in Schools. *Childhood obesity: what the research tells us*. George Washington University, viewed March 2005, <http://www.healthinschools.org/sh/obesityfs.pdf>.
2. World Health Organization. *Controlling the global obesity epidemic*. Updated April 2003, viewed March 2005, <http://www.who.int/nut/obs.htm>.
3. National Center for Chronic Disease Prevention and Health Promotion. *At a glance: Physical activity and good nutrition: essential elements to prevent chronic diseases and obesity*. Updated August 2004, viewed March 2005, <http://www.cdc.gov/nccdphp/dnpa>.



## Interesting !

New research from Germany shows creativity and the ability to solve problems is directly linked to how much sleep we get each night. They have found the slumbering brain continues to work on the problems which have been troubling us during the day, with those people who sleep well actually waking up smarter than those who don't!



## Consumer Feedback on Mirage Swift™ Nasal Pillows System

"I have always been a 'hard-to-fit' OSA patient...and so have preferred nasal pillows because they eliminated one of the 'fit' equations: headgear!

"I was wary of Swift at first glance because its headgear seemed substantial and looked heavy. I was pleasantly surprised to find it not only comfortable, but lightweight and stable. Suffering with mild restless legs syndrome (RLS) as well as OSA, I frequently change sleeping positions and found that the headgear allowed the stability to do so without dislodging the nasal pillows from my nostrils ... without the worry of mask leak. Swift is a winner for hard-to-fit patients like me.

"This would be the first 'official' interface endorsement that I have made as a 'Talk About Sleep' officer! I do not enter into this lightly. I sincerely believe in this product."  
**Tracy R. Nasca, Senior Vice President, Talk About Sleep, Inc.**

"I have never found a nasal pillow that I could tolerate ... until I used the Swift Nasal Pillows device. It is a totally different experience ... The Swift is easy to adjust, very quiet, remains in place, does not limit my sleep positions nor does it come off during my sleep. It requires almost no adjusting, fits in place instantaneously, and allows me to keep my glasses on for reading, television, etc., prior to falling asleep. Now I am hooked on the Swift ... I think you have an instant winner!"  
**Victor E. Silverman, Physician (MD, FACP, FACE)**

### Feedback from around the globe

#### France

"ResMed has done some great improvements on the mask technology with the Activa™ and its ActiveCell™ and now the Mirage Swift. It's a great improvement in terms of simplicity and ease of use, the headgear is easy to handle, your field of visual is totally open, it is light and fast to fit.

You just have to choose the right size for the nasal pillow cushion and it's done ... Well done and thanks for helping to ventilate our dreams."  
**MC is a 40 year old male professional sales representative who travels a lot.**

#### USA

"I must say my new Swift that I got recently has worked well for me. I was unable to use other pillow masks—the plenum hurt my upper teeth and the pillows irritated my nostrils. The soft construction of the Swift avoids these problems."  
**CS**

"I 'rotate' between two interfaces and the Swift is the every other night interface along with my Activa. There are a lot of things I REALLY like about the Swift. Keep up the good work and thanks."  
**TI**

#### Germany

A 70 year old lady, who has been using CPAP therapy for 3 months, experienced lots of 'pimples' which erupted around her nose where the

mask touches the skin. The 'pimples' had a lot of water in them and at a certain point the blisters opened and left sores on her skin. For at least one week she could not use therapy because her skin needed time to heal. She tested many other masks but it did not get better. Then she was about to stop therapy and we asked her to try the Mirage Swift. As soon as she saw the Swift she was happy because the mask is so lightweight and there is no Velcro® in the headgear. She slept with the Mirage Swift and she suffered no problems with her skin and is continuing with therapy.

**Anonymous**

#### Asia Pacific

"It's so light and comfortable, it's unobtrusive on my face and therefore does not interrupt my vision. The side clip-in elbow option is wonderful."

**GH**

Note: Initials have been used to keep the identity of the persons anonymous.



# Sleep Smart

## Part 6: Understanding Sleep

Our sleep is controlled by a 'body clock' or circadian rhythm. This body clock tells the body when to wake, when to sleep, when to produce hormones and so forth. It is this circadian rhythm that programs us to be awake during the day and asleep at night. This is why we can have problems with jet lag when we travel and sleepiness during shift work—the body clock gets out of synchronization.

### So how much sleep do I need?

The number of hours varies from person to person but researchers believe most people need a minimum of seven good hours sleep a night.

When you don't get enough sleep, you begin building up 'sleep debt',

that is, the difference between how much sleep you have had and how much you actually needed. Sleep debt is something that accumulates: if you miss two hours each night for a week, by the end of the week your brain and body feel the effects, such as irritability, poor mental performance, mood changes, poor concentration and even illness.

Consistent schedules can be more important than the actual number of hours you sleep. Many body functions depend on your sleep-wake cycle, so disturbed sleep can alter these functions and lead to subtle changes in our physiology. People who are under a lot of stress require more REM sleep.

Today we are sleeping fewer and fewer hours than years ago. Pre-industrial men and women slept 12–14 hours a day; with the arrival of the industrial revolution, electric light and now 24 hour services our average hours of sleep have reduced dramatically.

Ideally getting seven to eight hours sleep a night is what the experts believe to be enough to refresh your body, remembering that there are some people who seem to be 'programmed' for more or less than this.

If you feel refreshed in the mornings and don't feel tired during the day, then you know you are getting enough sleep.



The right kind of support can make all the difference to CPAP treatment. Whether you are new to treatment for have been a user for many years, there are times when you need expert advice and encouragement.

ResMed's sleepVantage\* program is designed to help you get the most from your treatment at all times. Contact your local ResMed office to find out more about FREE MEMBERSHIP to sleepVantage and its exciting benefits.

\* currently sleepVantage is only available in Australia and the UK.

### ResMed's World Offices:

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