

Celebrity BMI Investigation

WHAT IS YOUR BMI?

Doctors check your body size by measuring your weight and height. This calculation is known as the body mass index (BMI). Research has shown that people within a certain range of body size tend to live the longest and enjoy the best health.

It is important to remember that your BMI is only one guide to your overall health. Waist measurement, body fat level, blood pressure, cholesterol, physical activity, being a non-smoker and the healthiness of your diet are also important. You need to get the whole picture.

BMI is not as accurate if you are a muscular athlete. Muscle weighs more than fat and this can place you into a higher BMI category despite having a healthy level of body fat. It is also not accurate for women who are pregnant or breastfeeding, or people who are frail.

How is BMI calculated and interpreted?

Formula and calculation	
Formula: BMI = weight (kg) / height (metres) ² Weight in kilograms divided by height in metres (squared)	
Example: Height = 165 cm Weight = 65 kg Change height cm to m by dividing by 100 (100 cm = 1 m) 1.65m The height ² means height x height 1.65 x 1.65 2.7225	
Calculation: 65 / 2.7225 = 23.875	rounds to 23.9

The standard weight status categories associated with BMI ranges for adults are shown in the following table.

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal
25.0 – 29.9	Overweight
30.0 and Above	Obese

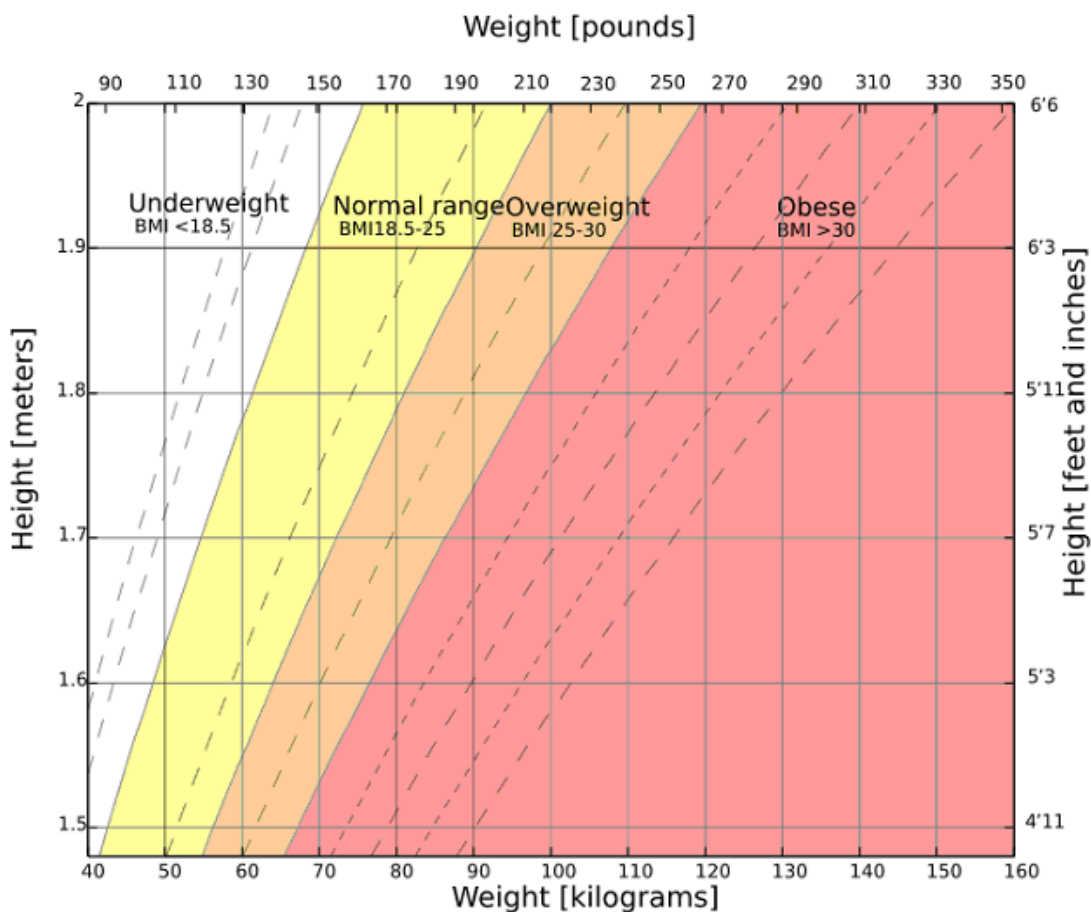
Source: National Heart, Lung & Blood Institute www.nhlbisupport.com (November 2007)

What you need to do

- Collect data from five celebrities on the attached list so that you can calculate their BMI. Include Arnold Schwarzenegger and Kirstie Allie.
- Add me to your data. I am old fashioned and only know my weight and height in imperial sizes so you will need to convert these. I am 5ft 2ins tall and weigh 10 stone.

1 inch = 25.4mm	1 lb = 0.45 kg
There are 14 lbs in a stone.	There are 12 inches in a foot.

- You may have noticed in the media that there has been a lot of discussion about the low weight and BMI of catwalk models. Read the attached article and include Ana Carolina Reston in your data as an example of a popular catwalk model.
- Calculate the BMI for the seven people whose data you have collected.
- Present your BMI data as a chart.
- Show the mean, range and median of the BMI figures on your chart.
- Having calculated my BMI, which category am I in and what health advice would you give me?
- What do you think about the skinny catwalk models? Kate Moss is said to have a BMI of 15. Looking at the chart what do you think her height and weight might be to arrive at this figure? What are the health issues associated with such a low BMI?



Source: Wikipedia http://en.wikipedia.org/wiki/Body_mass_index (Jan 2008)

Celebrity Heights and Weights

Leonardo Dicaprio	183 cm	82 kg
Johnny Depp	178 cm	86 kg
Antonio Banderas	183 cm	78 kg
Arnold Schwarzenegger	188 cm	117 kg
Will Smith	188 cm	95 kg
Victoria Beckham	167 cm	48 kg
Drew Barrymore	163 cm	64 kg
Tyra Banks	178 cm	73 kg
Kirstie Alley	170 cm	80 kg
Mariah Carey	170 cm	73 kg
Keanu Reeves	185 cm	101 kg
Gwyneth Paltrow	175 cm	51 kg
Britney Spears	165 cm	48 kg
Angelina Jolie	170 cm	54 kg
Jennifer Lopez	167 cm	54 kg
Kate Winslet	173 cm	59 kg
Tom Cruise	170 cm	91 kg
Kate Moss	170 cm	48 kg

Ana Carolina Reston

Ana Carolina Reston Macan (June 4, 1985 – November 15, 2006) was a Brazilian fashion model of part Lebanese heritage.



Macan was born to a middle class family in Jundiaí, on the outskirts of São Paulo, Brazil. At the age of 13 she began her modelling career after winning a local beauty contest in her hometown. She was represented by renowned modelling agencies such as Ford, Elite and L'Équipe in countries such as China, Turkey, Mexico, and Japan, including prestigious ad campaigns such as Giorgio Armani in January 2004.

Macan made her first overseas trip to Guangzhou, a Chinese city close to Hong Kong. While attending a casting call there, she was reportedly informed that she was 'too fat', a criticism, it has been said, that led to her decline into anorexia nervosa.

At the time of her death Macan weighed only 40 kilograms. She was 172 cm tall. Macan had been hospitalized since October 25 for kidney malfunction due to anorexia and bulimia nervosa, which included a diet consisting only of apples and tomatoes. Her condition became more serious and deteriorated into generalised infection that led to her death at the age of only 21.

Macan was the second model reported to die from anorexia-related complications in 2006. Luisel Ramos, a 22-year-old Uruguayan model, suffered a heart attack in August after living on lettuce leaves and Diet Coke for three months.

Source: Wikipedia http://en.wikipedia.org/wiki/Ana_Carolina_Reston