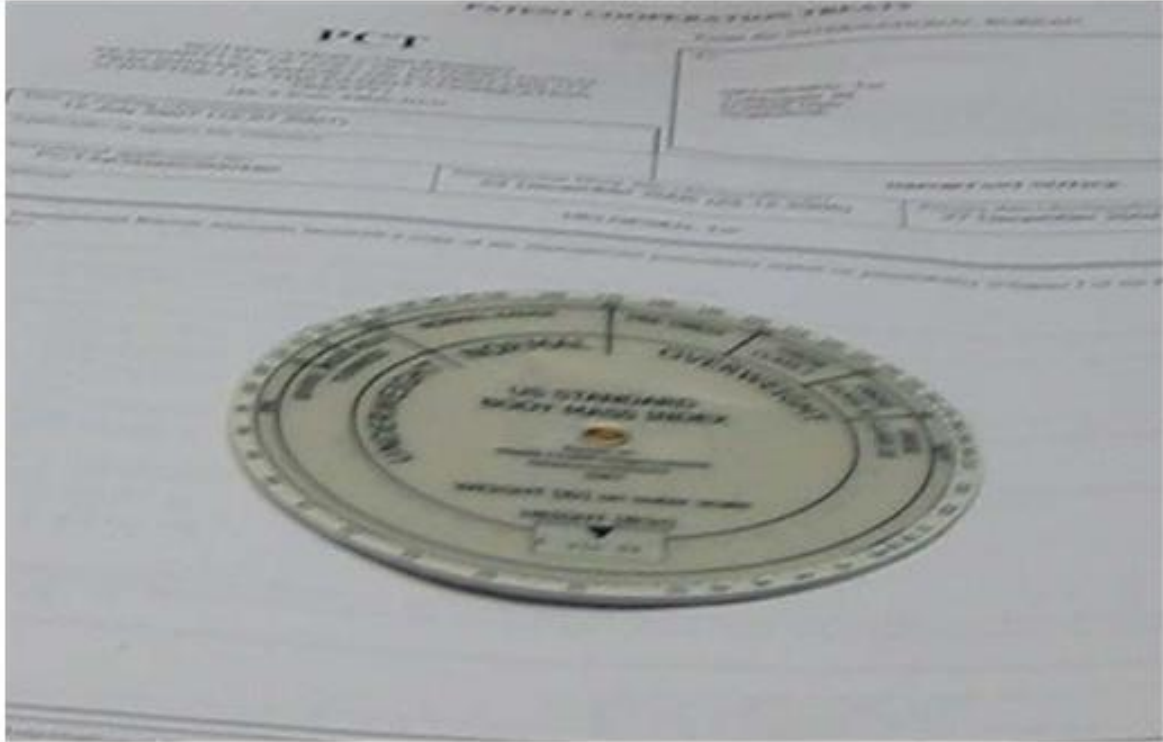
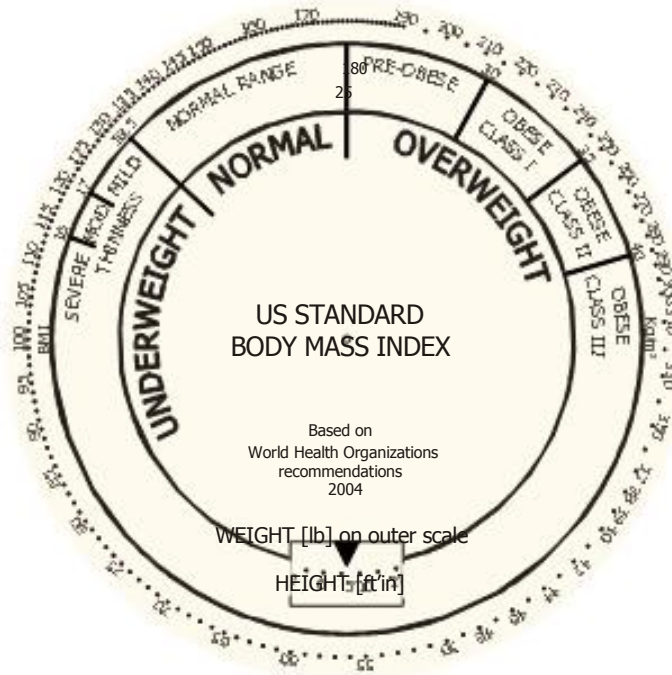


BODY MASS INDEX COMPUTER

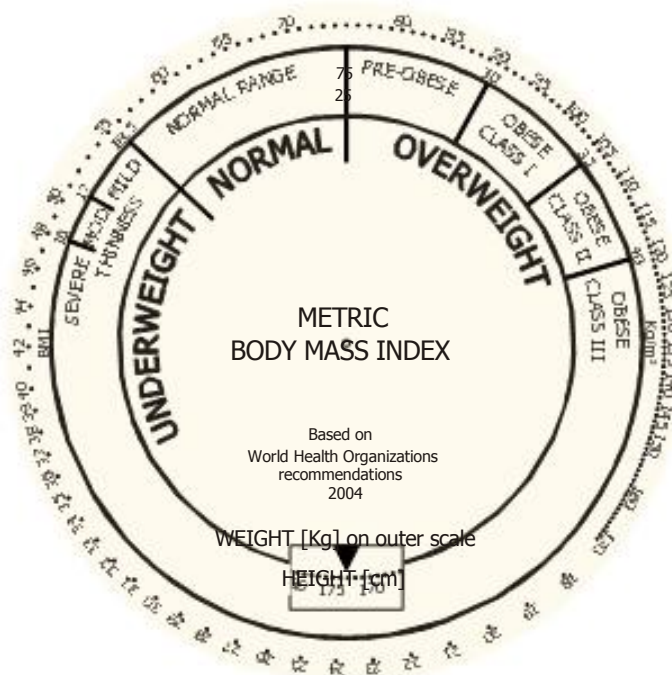


Design by
Tor Helgesen

Consist of 3 PVC disks (credit card quality) that are linked together at the center, so that all disks can move independently. This will make a US standard side (which use lb as weight unit, and ft and in as height units), as shown below.

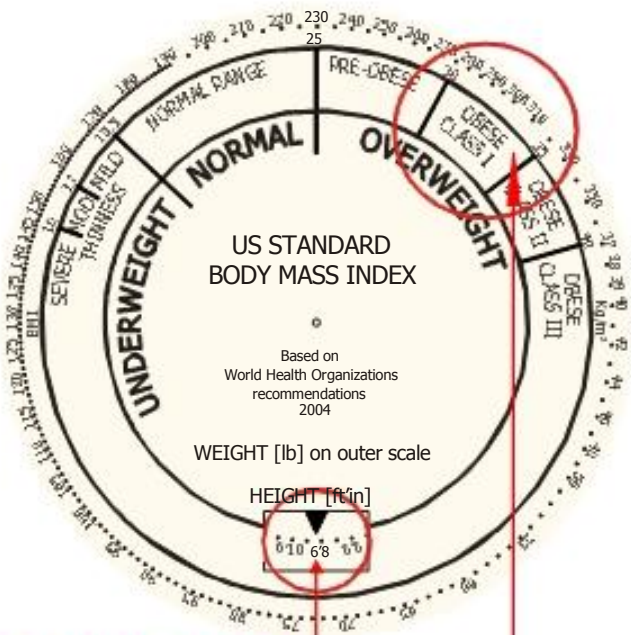


On the other side there are a metric BMI computer (using Kg and cm as units), as shown below.



Body Mass Index (BMI) is recommended by the World Health Organization (WHO) and Center for Disease Control and Prevention (CDC) as guide to determine obesity and thinness. According to WHO and CDC, this computer groups (based on weight and height) into 3 main categories (underweight, normal and overweight). Underweight are then categorized into 3 subgroups (mild thinness, moderate thinness and severe thinness). Overweight are grouped into 4 groups (pre-obese, obese class I, obese class II and obese class III).

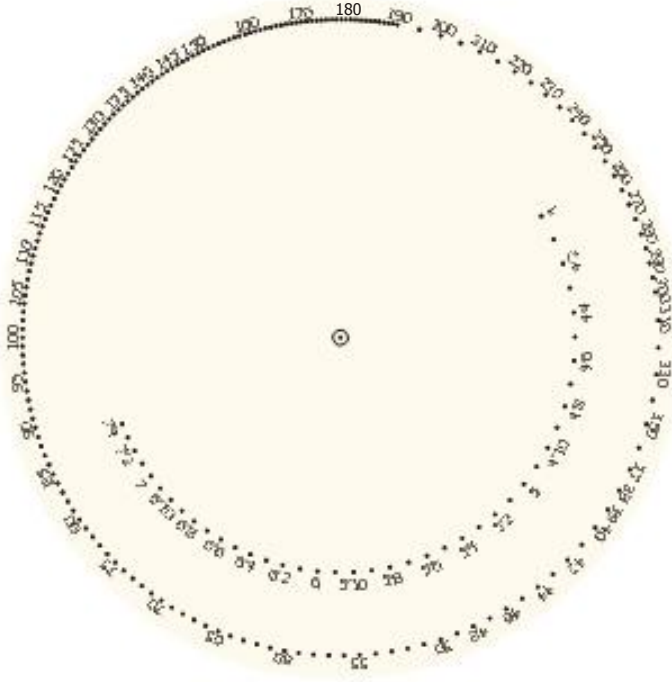
**One example:
A person is 6ft 8in and 300lb**



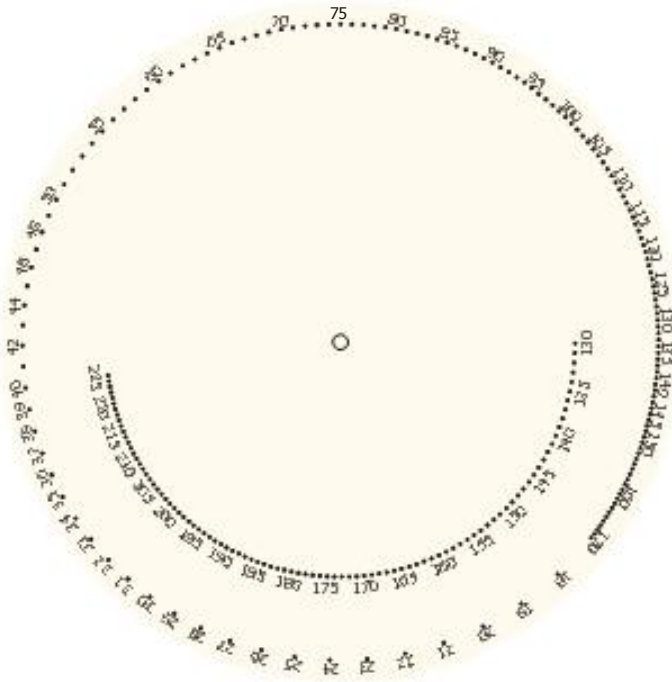
First adjust the height on the inner scale

Then look up the weight on the outer scale where category can be determined. In this case OBESE CLASS I

The centre disk has print on both sides as shown below.

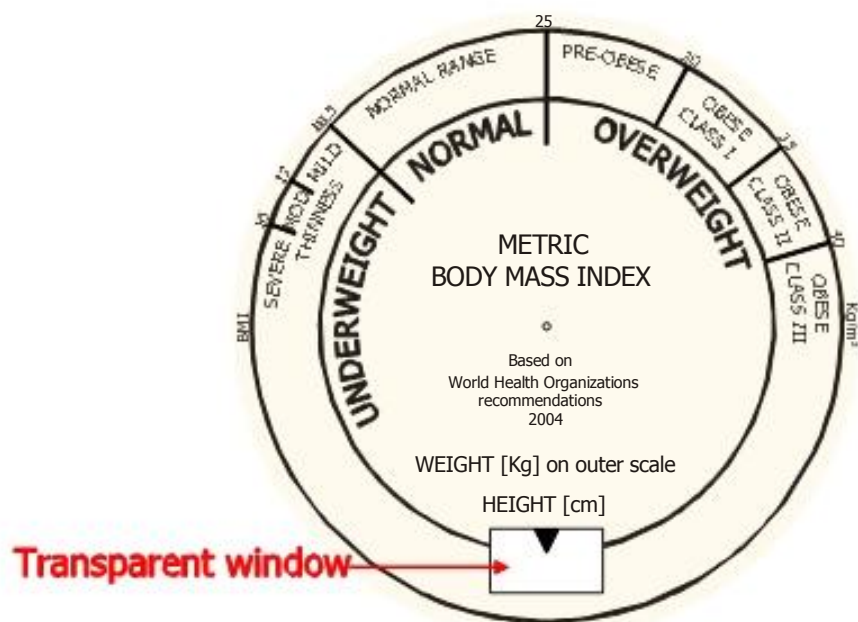
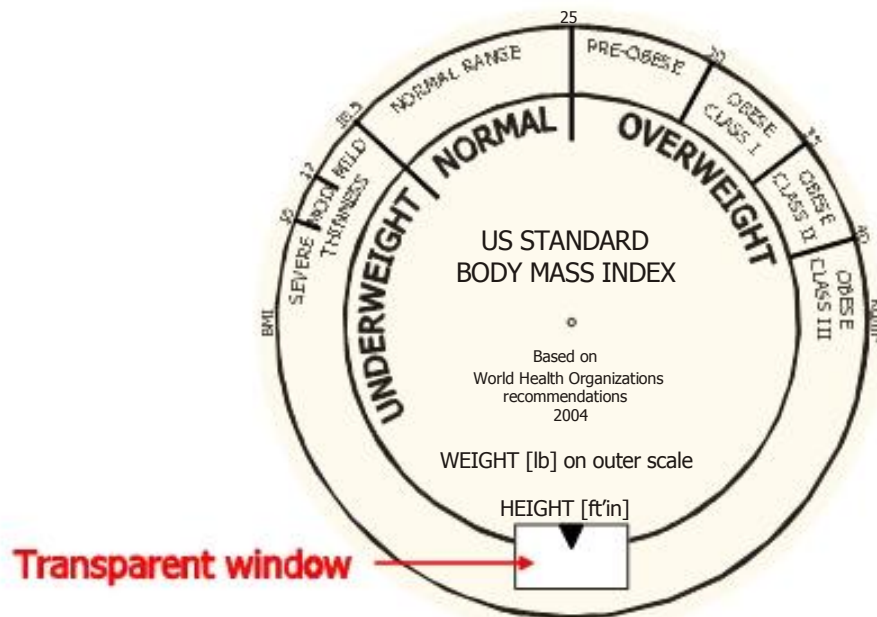


US STANDARD SIDE



METRIC SIDE

And the 2 top disks has print only on one side as shown bellow



From the homepage of World Health Organization

BMI classification

Body Mass Index (BMI) is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m²). For example, an adult who weighs 70kg and whose height is 1.75m will have a BMI of 22.9.

$$\text{BMI} = 70 \text{ (kg)} / 1.75^2 \text{ (m}^2\text{)} = 22.9$$

Table 1: The International Classification of adult underweight, overweight and obesity according to BMI

Classification	BMI(kg/m ²)	
	Principal cut-off points	Additional cut-off points
Underweight	<18.50	<18.50
Severe thinness	<16.00	<16.00
Moderate thinness	16.00 - 16.99	16.00 - 16.99
Mild thinness	17.00 - 18.49	17.00 - 18.49
Normal range	18.50 - 24.99	18.50 - 22.99
		23.00 - 24.99
Overweight	≥25.00	≥25.00
Pre-obese	25.00 - 29.99	25.00 - 27.49
		27.50 - 29.99
Obese	≥30.00	≥30.00
Obese class I	30.00 - 34.99	30.00 - 32.49
		32.50 - 34.99
Obese class II	35.00 - 39.99	35.00 - 37.49
		37.50 - 39.99
Obese class III	≥40.00	≥40.00

Source: Adapted from WHO, 1995, WHO, 2000 and WHO 2004.

BMI values are age-independent and the same for both sexes. However, BMI may not correspond to the same degree of fatness in different populations due, in part, to different body proportions. The health risks associated with increasing BMI are continuous and the interpretation of BMI gradings in relation to risk may differ for different populations.