Theme:

Personal Life-Skills

Safety

Lifestyle (Healthy)

Exercise & Fitness Management

NEW TOWN SECONDARY SCHOOL
PHYSICAL EDUCATION

PHYSICAL HEALTH & FITNESS
SECONDARY 1

LESSON 1: KNOWING YOUR HEIGHT, WEIGHT & BMI

Lesson Objectives:

1. Knowing Singapore & her Obesity Crisis
2. Calculating your BMI
3. Importance of a healthy weight

GLOBAL EPIDEMIC!

Overweight statistics (2017):
- 18-69 years old: **36.2%**
- Children: **13%**

6 in 10 Singaporeans eat more calories daily than what is recommended.

Singapore risks hitting obesity rates of **15%** in 5 years!

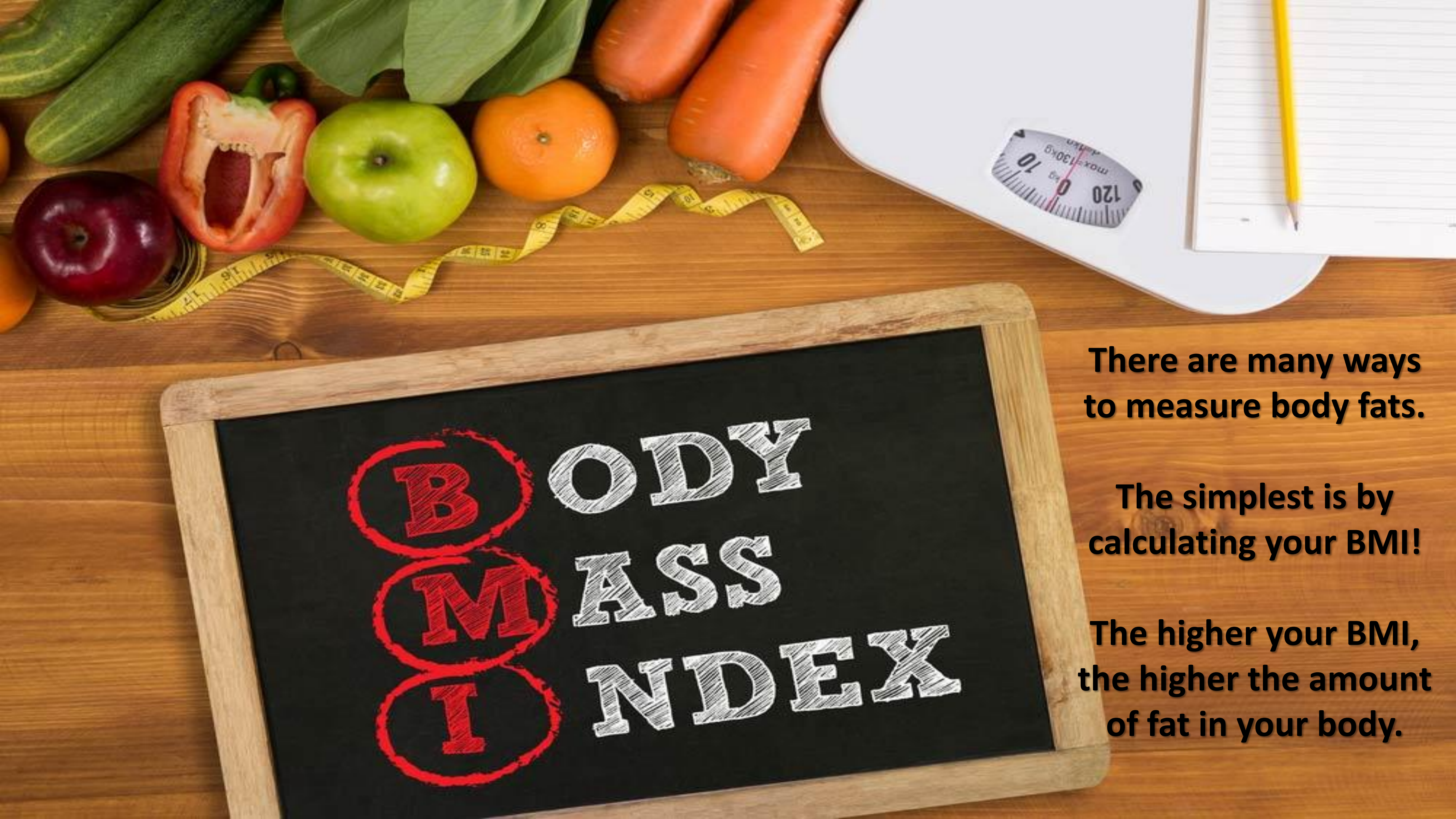
"An unhealthy body weight in childhood is likely to persist and progress later in life, leading to an increased risk of conditions such as diabetes, heart disease and stroke," said Dr Khor.

How to Achieve a Healthy Weight?

1. Understand the dangers of Obesity
   - Obesity
     = condition in which excess body fats accumulates.
     = Puts you at risk of a variety of health problems.
     = May reduce life expectancy & increase the risk of other health problems (eg. Diabetes, stroke, heart diseases)

2. Know your BMI

3. Plan Well & Follow your Plan Well

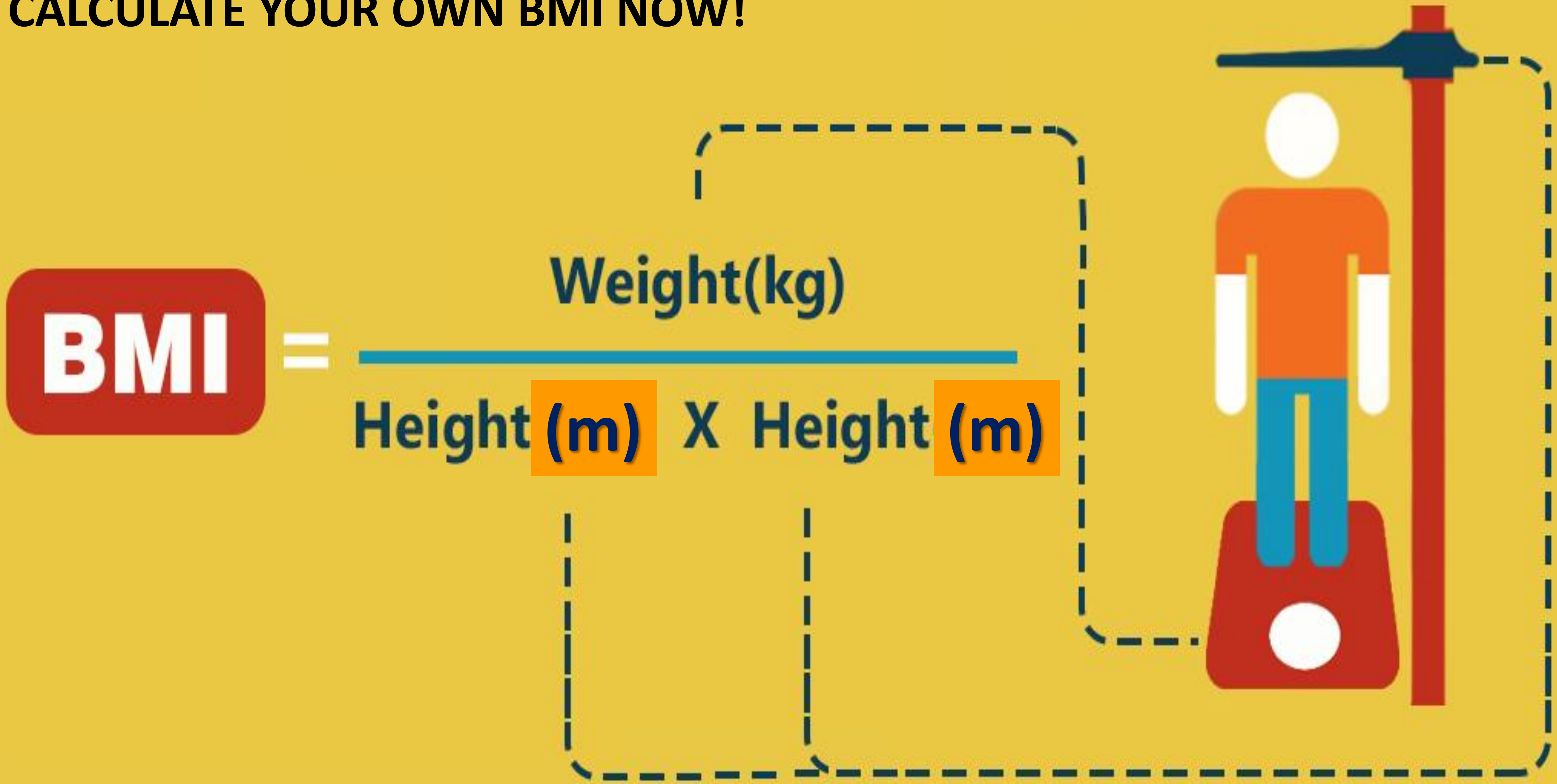

BODY
MASS
INDEX
max=130kg
10
0
120

There are many ways to measure body fats.

The simplest is by calculating your BMI!

The higher your BMI, the higher the amount of fat in your body.

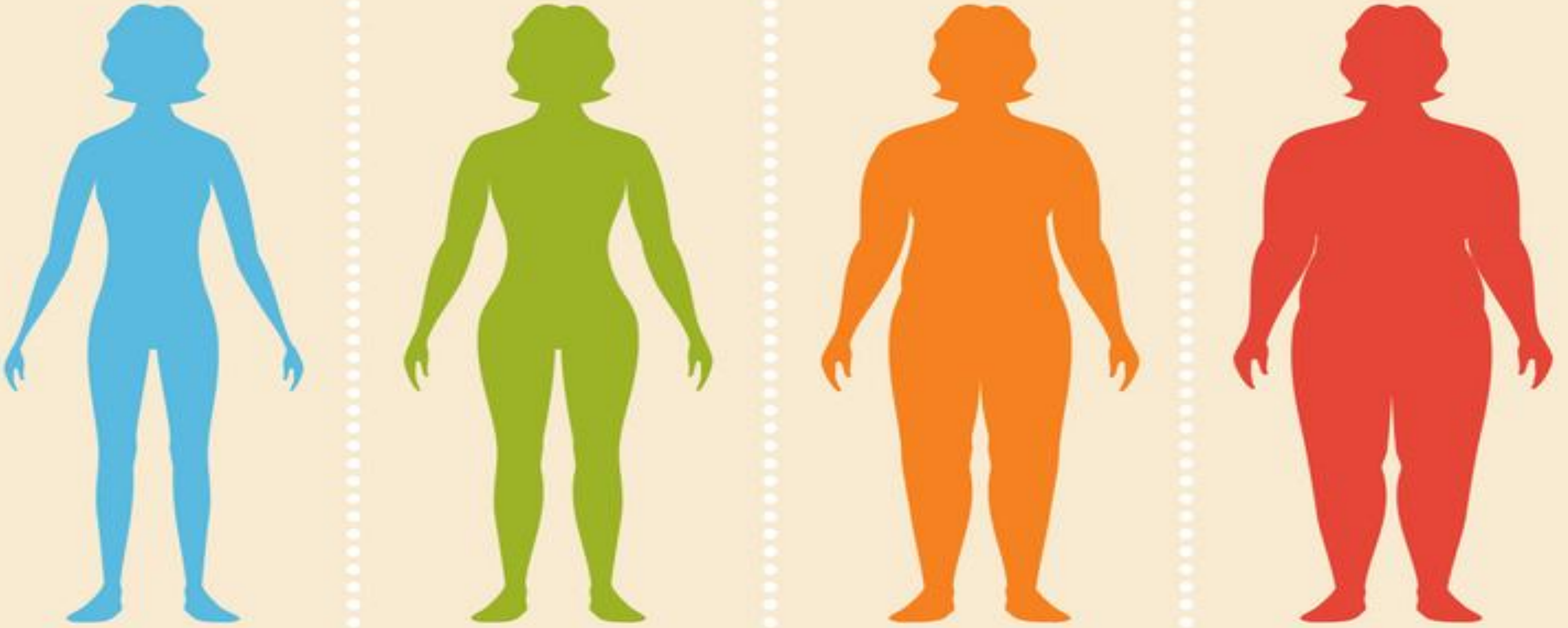
CALCULATE YOUR OWN BMI NOW!



$$\text{BMI} = \frac{\text{Weight(kg)}}{\text{Height (m)} \times \text{Height (m)}}$$

BODY MASS INDEX

MEDICAL INFOGRAPHIC



UNDERWEIGHT
14.8 – 15.1

ACCEPTABLE
15.2 – 25.0

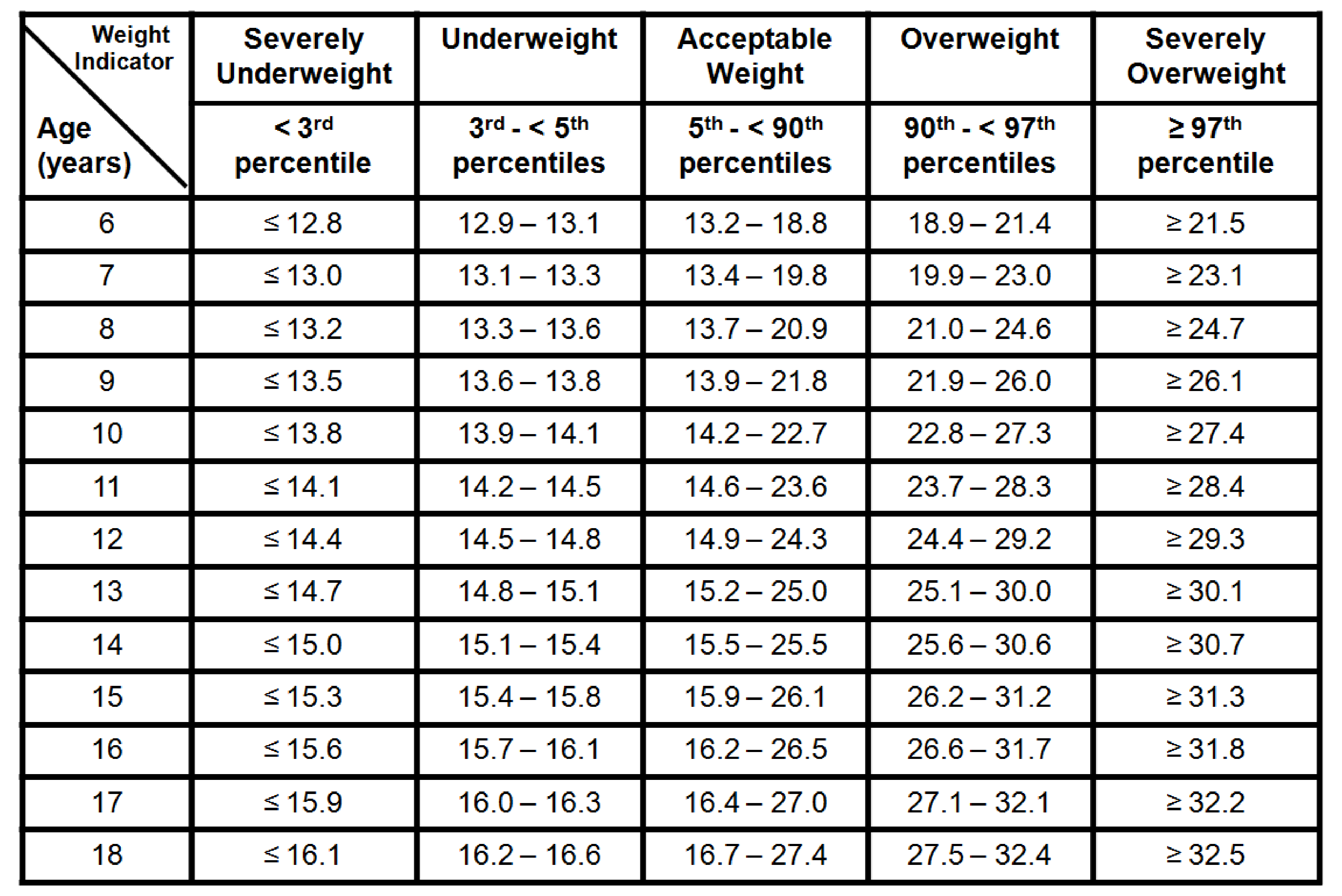
OVERWEIGHT
25.1 – 30

SEVERELY
OVERWEIGHT
≥30.1

BOYS

(13 Years old)

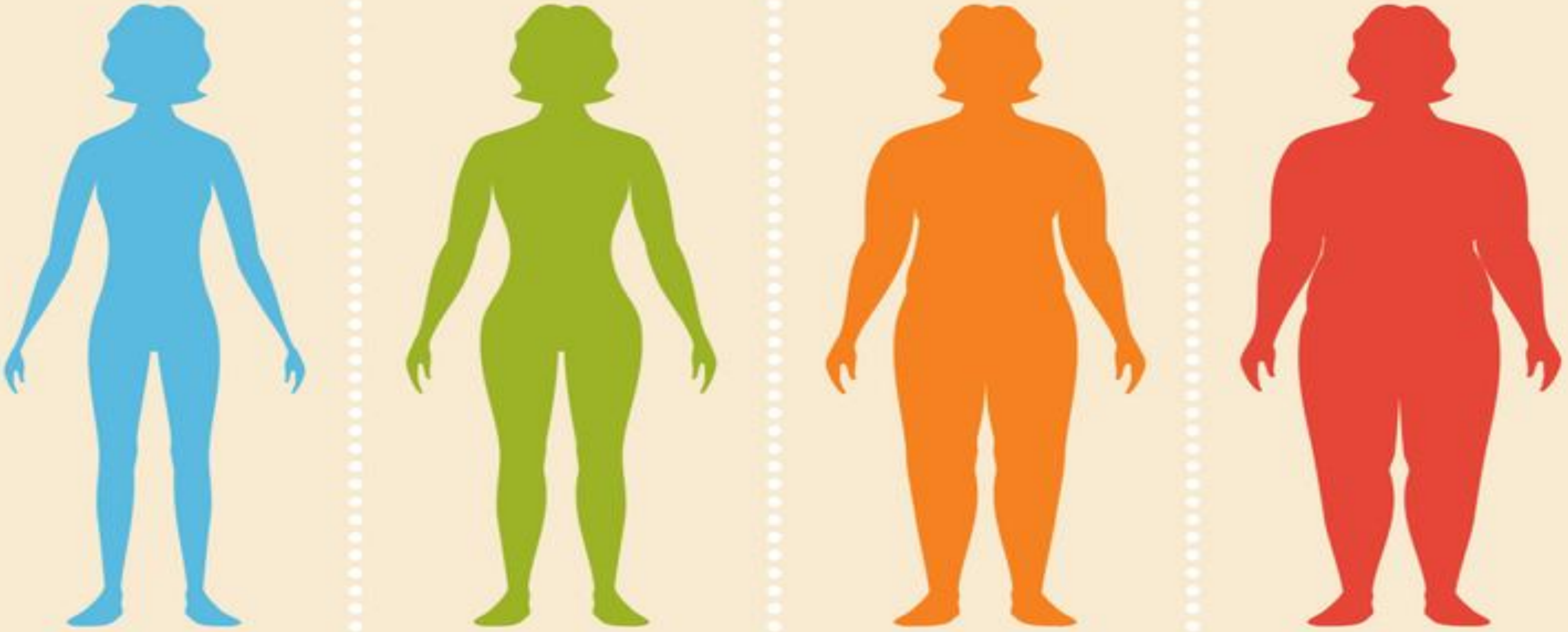
BOYS



Weight Indicator Age (years)	Severely Underweight	Underweight	Acceptable Weight	Overweight	Severely Overweight
	< 3rd percentile	3rd - < 5th percentiles	5th - < 90th percentiles	90th - < 97th percentiles	≥ 97th percentile
6	≤ 12.8	12.9 – 13.1	13.2 – 18.8	18.9 – 21.4	≥ 21.5
7	≤ 13.0	13.1 – 13.3	13.4 – 19.8	19.9 – 23.0	≥ 23.1
8	≤ 13.2	13.3 – 13.6	13.7 – 20.9	21.0 – 24.6	≥ 24.7
9	≤ 13.5	13.6 – 13.8	13.9 – 21.8	21.9 – 26.0	≥ 26.1
10	≤ 13.8	13.9 – 14.1	14.2 – 22.7	22.8 – 27.3	≥ 27.4
11	≤ 14.1	14.2 – 14.5	14.6 – 23.6	23.7 – 28.3	≥ 28.4
12	≤ 14.4	14.5 – 14.8	14.9 – 24.3	24.4 – 29.2	≥ 29.3
13	≤ 14.7	14.8 – 15.1	15.2 – 25.0	25.1 – 30.0	≥ 30.1
14	≤ 15.0	15.1 – 15.4	15.5 – 25.5	25.6 – 30.6	≥ 30.7
15	≤ 15.3	15.4 – 15.8	15.9 – 26.1	26.2 – 31.2	≥ 31.3
16	≤ 15.6	15.7 – 16.1	16.2 – 26.5	26.6 – 31.7	≥ 31.8
17	≤ 15.9	16.0 – 16.3	16.4 – 27.0	27.1 – 32.1	≥ 32.2
18	≤ 16.1	16.2 – 16.6	16.7 – 27.4	27.5 – 32.4	≥ 32.5

BODY MASS INDEX

MEDICAL INFOGRAPHIC



UNDERWEIGHT
14.9 - 15.2

NORMAL
15.3 – 24.0

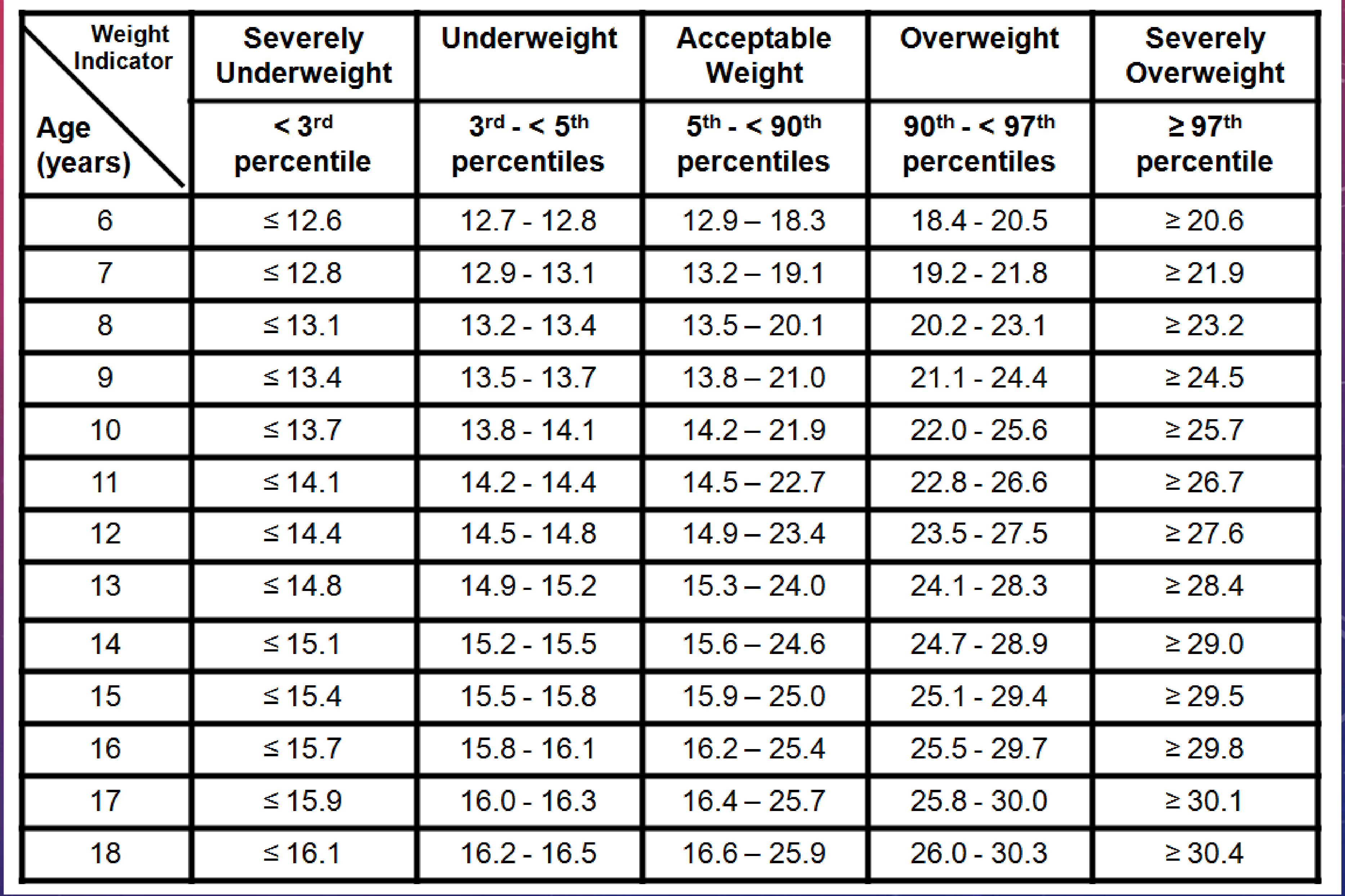
OVERWEIGHT
24.1 – 28.3

SEVERELY OVERWEIGHT
≥ 28.4

GIRLS

(13 Years old)

GIRLS



Weight Indicator / Age (years)	Severely Underweight	Underweight	Acceptable Weight	Overweight	Severely Overweight
	< 3rd percentile	3rd - < 5th percentiles	5th - < 90th percentiles	90th - < 97th percentiles	≥ 97th percentile
6	≤ 12.6	12.7 - 12.8	12.9 – 18.3	18.4 - 20.5	≥ 20.6
7	≤ 12.8	12.9 - 13.1	13.2 – 19.1	19.2 - 21.8	≥ 21.9
8	≤ 13.1	13.2 - 13.4	13.5 – 20.1	20.2 - 23.1	≥ 23.2
9	≤ 13.4	13.5 - 13.7	13.8 – 21.0	21.1 - 24.4	≥ 24.5
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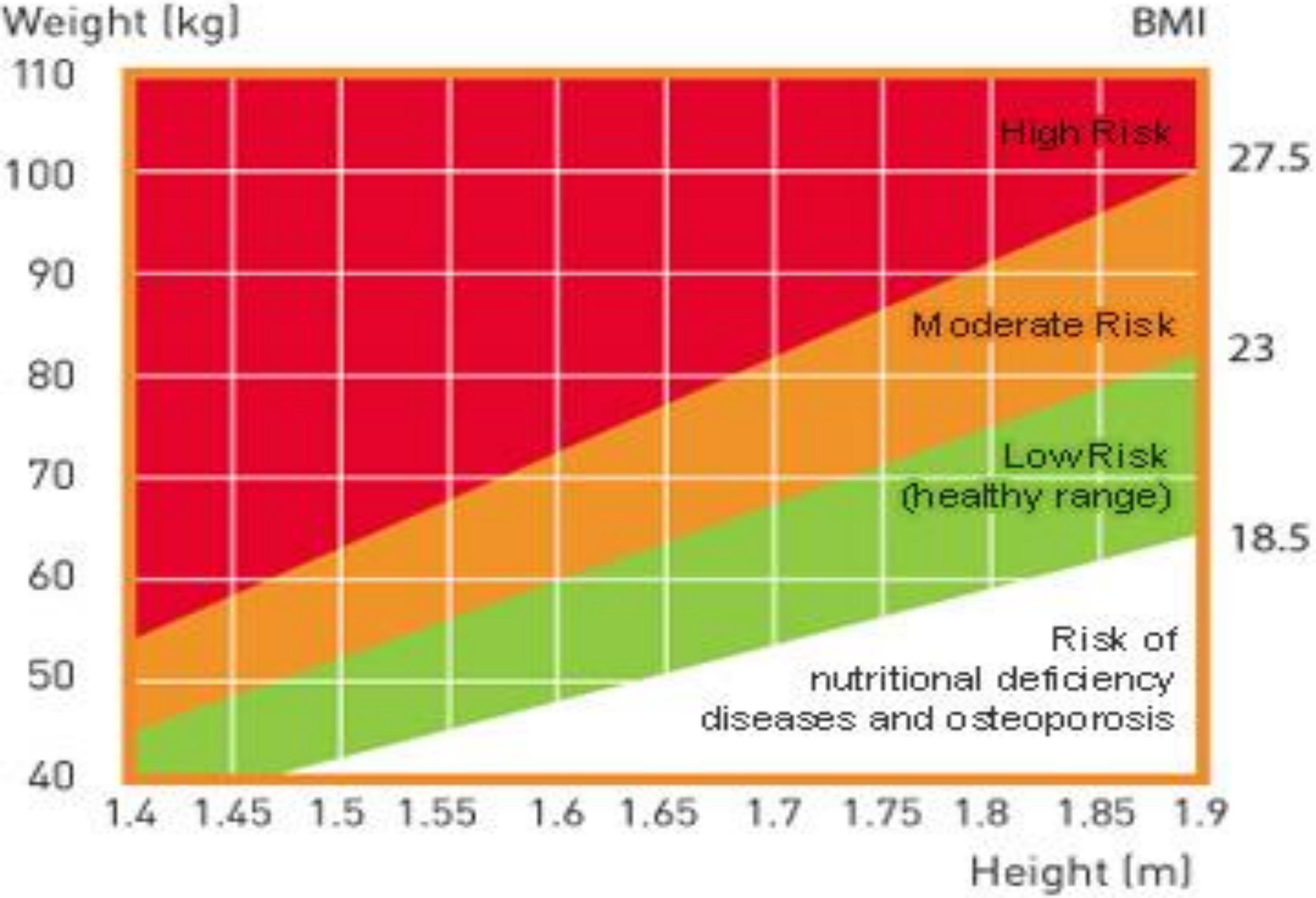
17	≤ 15.9	16.0 - 16.3	16.4 – 25.7	25.8 - 30.0	≥ 30.1
18	≤ 16.1	16.2 - 16.5	16.6 – 25.9	26.0 - 30.3	≥ 30.4

BMI Ranges

18.5 TO 22.9 LOW RISK

23 TO 27.4 MODERATE RISK

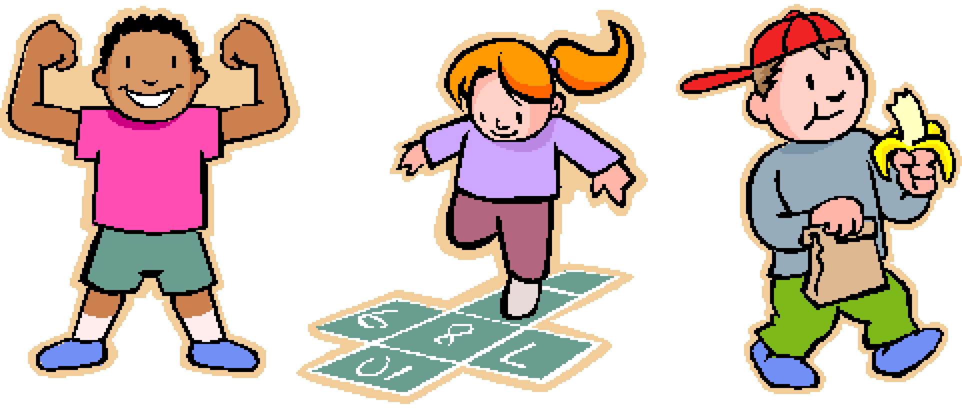
27.5 AND ABOVE HIGH RISK



Note: BMI should not be used to calculate health risk in pregnant women, people with muscular build and the elderly. These BMI ranges also do not apply to youths below 18 years.

UNDERWEIGHT and
the risk of being
Malnutrition is
equally important!

HOW CAN I MANAGE A HEALTHY WEIGHT ?



Calculate your BMI. Lose or Gain Weight the Right Way

Make it A Lifestyle & Be Consistent

Track Your Progress
to Help You Stay Motivated
ralHealthyConcer

Track your Progress!

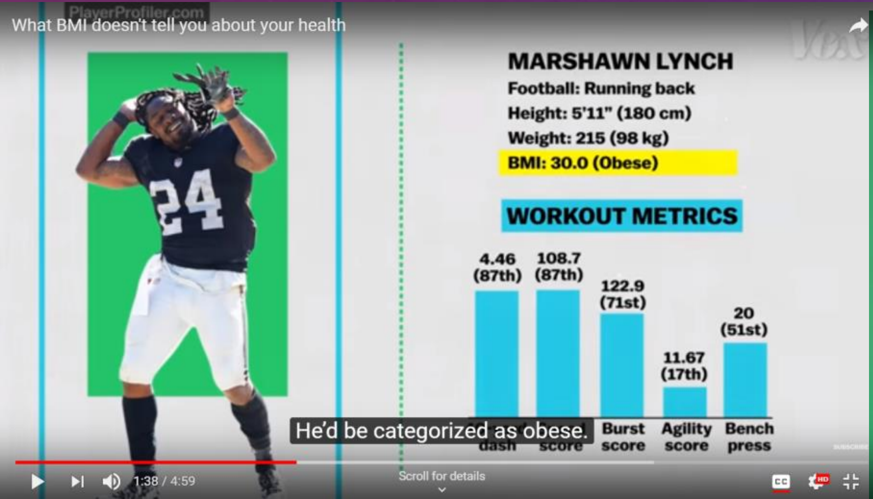
Food for thought:

It can be strange how a single decimal point can separate being overweight from being obese. What is a problem of BMI as an indicator of health when it comes to body weight?

ANSWER:

Penalizes those who have a lot of muscle mass. BMI doesn't distinguish muscle from fat. Age, Gender & Ethnicity can influence the relationship between BMI & Body Fat.

Examples: RUGBY PLAYER. WEIGHTLIFTER. SHOT PUTTER. BOXER. WRESTLER.



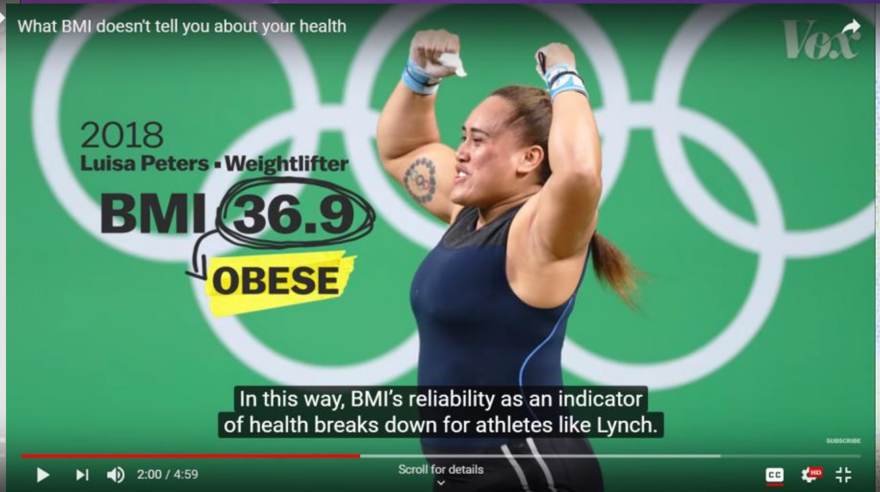
What BMI doesn't tell you about your health

MARSHAWN LYNCH
Football: Running back
Height: 5'11" (180 cm)
Weight: 215 (98 kg)
BMI: 30.0 (Obese)

WORKOUT METRICS

He'd be categorized as obese.

PlayerProfiler.com
Vox
24
4.46 (87th)
108.7 (87th)
122.9 (71st)
11.67 (17th)
20 (51st)
dash
score
Burst score
Agility score
Bench press
1:38 / 4:59
Scroll for details

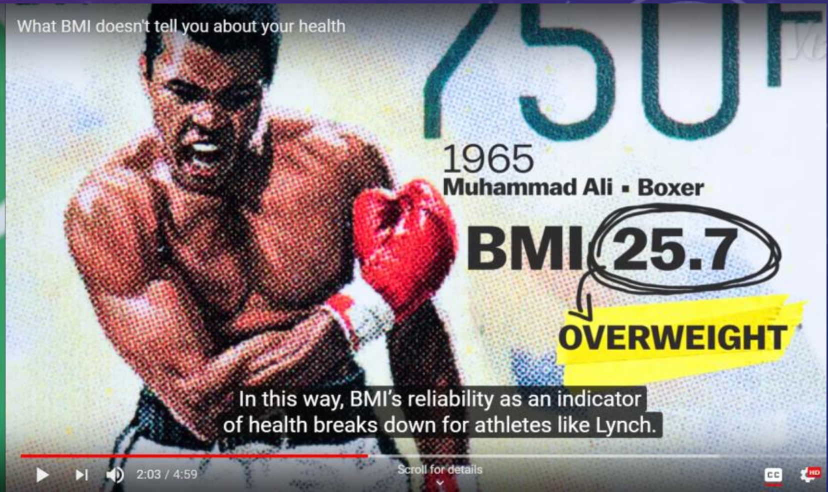


What BMI doesn't tell you about your health

2018
Luisa Peters • Weightlifter
BMI 36.9
OBESE

In this way, BMI's reliability as an indicator of health breaks down for athletes like Lynch.

Vox
2:00 / 4:59
Scroll for details

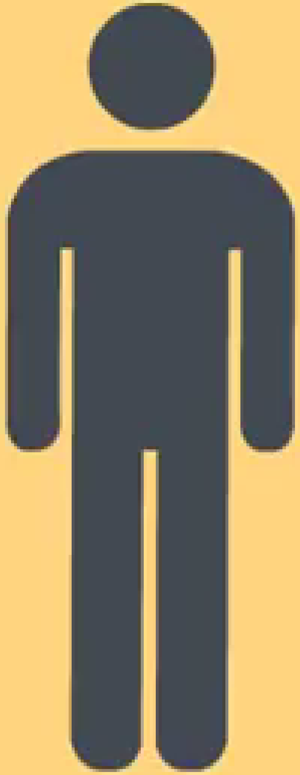


What BMI doesn't tell you about your health

1965
Muhammad Ali • Boxer
BMI 25.7
OVERWEIGHT

In this way, BMI's reliability as an indicator of health breaks down for athletes like Lynch.

250
2:03 / 4:59
Scroll for details



ANY QUESTIONS?

Resources:

1. https://www.straitstimes.com/singapore/adults-are-getting-fitter-but-children-are-increasingly-overweight-moh-figures

2. https://www.healthhub.sg/live-healthy/410/Healthy%20Weight

3. https://www.healthhub.sg/live-healthy

4. https://www.youtube.com/results?search_query=bmi+and+weight+management+animated