THE TRUTH ABOUT BODY FAT

Some people villainize body fat. Others say body fat levels aren't indicative of overall health. In reality, the truth lies in between the extremes.

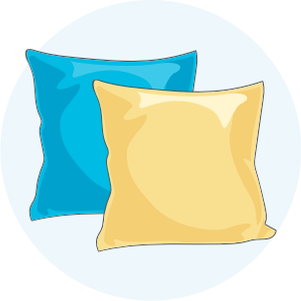
TRUTH #1: BODY FAT SERVES A PURPOSE

Because of its many roles, *some* body fat is essential for optimal health.

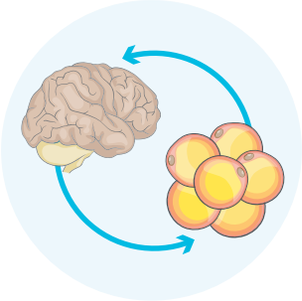
BODY FAT IS ACTUALLY AN ORGAN. IT...

Stores energy

Keeps you warm

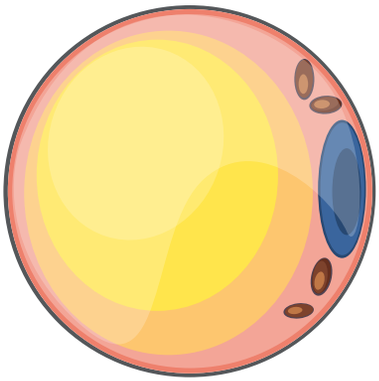


Cushions your internal organs



Helps manufacture hormones

DIFFERENT TYPES OF FAT PERFORM DIFFERENT FUNCTIONS.

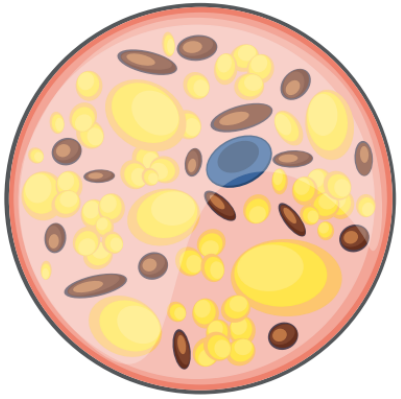


WHITE FAT

White fat is the most abundant type of body fat, and also acts an endocrine organ. It stores energy and generates hormones and compounds, like leptin.

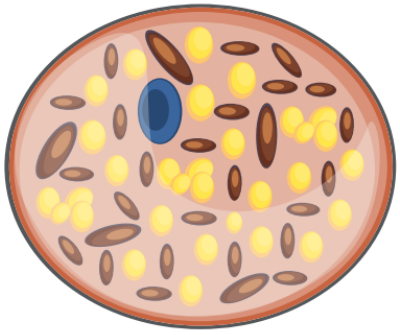
PINK FAT

During pregnancy and lactation, some breast fat converts into pink fat, which produces and releases breast milk.



BEIGE FAT

When you're exposed to sustained cold temperatures, some white fat cells can turn beige. These cells store energy (like white fat), but can also burn energy (like brown fat).



BROWN FAT

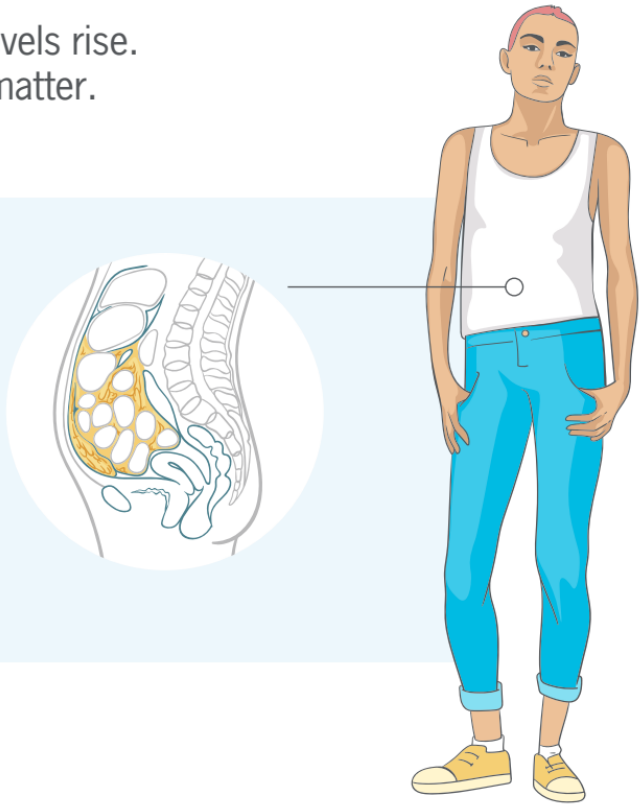
This fat creates heat by breaking down sugar and fatty acids, which regulates blood sugar and increases metabolism. Exercise increases brown fat; active individuals tend to have more.

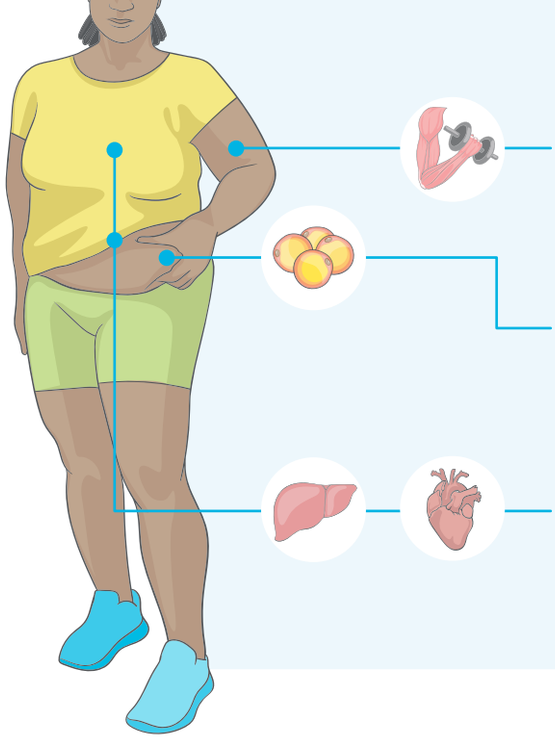
TRUTH #2: YOU CAN'T LOOK AT SOMEONE'S BODY AND GUESS THEIR HEALTH STATUS.

Metabolic health tends to drop as body fat levels rise. But fat location and muscle-to-fat ratio both matter.

Someone may appear thin.

Yet, they may lack muscle or store excessive amounts of fat in their liver, near their heart, or deep in the abdomen. These fat deposits are associated with elevated insulin, glucose, cholesterol, and blood pressure.





Conversely, a larger-bodied person may be metabolically healthy.

Regular activity and more muscle may improve insulin sensitivity and keep blood pressure, inflammation, and cholesterol in check.

They may mostly have subcutaneous fat. This pinchable surface-level fat poses fewer health risks than fat located elsewhere (viscerally or in the liver).

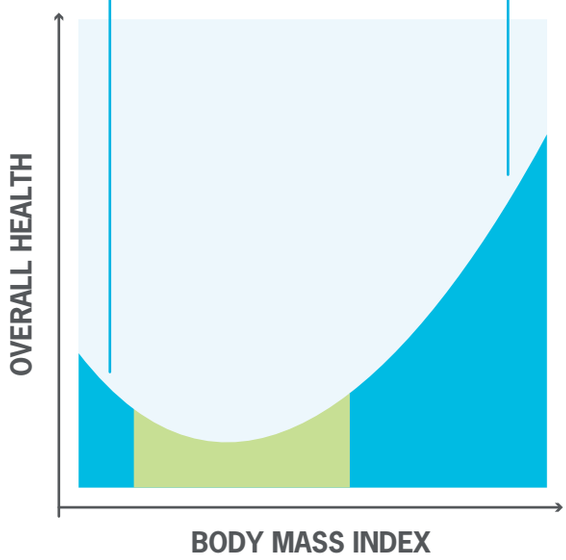
They may have normal amounts visceral or liver fat—reducing their risk of diseases asociated with these highly-inflammatory fat depots.

TRUTH #3: TOO MUCH *AND* TOO LITTLE BODY FAT ARE ASSOCIATED WITH RISKS.

In general, if your Body Mass Index (BMI) is less than 18 or more than 30, health risks tend to go up.

LOW BMI ↑ RISK FOR:

- Reduced ability to fight infections
- Reduced sex hormones
- Disrupted menses
- Loss of bone mass and increased fractures
- Infertility
- Low libido
- Erectile dysfunction



HIGH BMI ↑ RISK FOR:

- Fatty liver disease
- High blood pressure
- Insulin resistance and diabetes
- Inflammation
- Joint distress
- Sleep apnea
- Heart disease
- Cancer

DO YOU HAVE TOO MUCH (OR TOO LITTLE) BODY FAT?

To find out, you've got two options.

1 OPTION

Use our **BODY FAT CALCULATOR** to figure out your body fat percentage. Then consult the chart below.

BODY FAT RANGES

Sex	Age	Low	Normal	High	Very High
Female	20 – 39	< 21	21.0 – 32.9	33.0 – 38.9	≥ 39
	40 – 59	< 23	23.0 – 33.9	34.0 – 39.9	≥ 40
	60 – 79	< 24	24.0 – 35.9	36.0 – 41.9	≥ 42
Male	20 – 39	< 8	8.0 – 19.9	20.0 – 24.9	≥ 25
	40 – 59	< 11	11.0 – 21.9	22.0 – 27.9	≥ 28
	60 – 79	< 13	13.0 – 24.9	25.0 – 29.9	≥ 30

Adapted from NIH/WHO Guidelines for BMI; Gallagher et al, American Journal of Clinical Nutrition, Vol. 72, September 2000

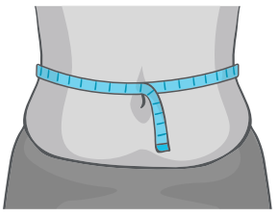
Data is based on available research. If you're an adult who falls outside these age ranges, use the body fat percentage category closest to your age. Also, "Normal" is a term used by guidelines we've cited; it's not our view that body fat levels falling below or above this range are "abnormal" or inherently unhealthy.

2 OPTION

Estimate health risks using your waist-to-hip ratio. First, measure your waist and hips. Then, divide your waist measurement by your hip measurement.

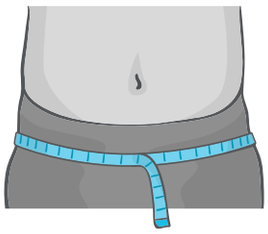
HOW TO TAKE YOUR MEASUREMENTS

Waist



Measure at the narrowest part of your waist (usually around your navel).

Hips



Measure at the widest part of your hips.

Tip: To get an accurate measurement, the measuring tape should be snug, with no gaps between the tape and your skin—but not so tight it's cutting into your skin.

	Waist Circumference	Waist-to-Hip Ratio
Healthy Range (Low Health Risk)	Men: Below 37 inches Women: Below 31.5 inches	Men: .95 or below Women: .80 or below

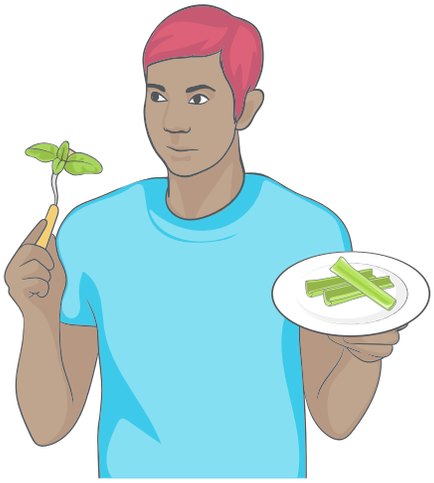
IF YOUR BODY FAT OR WAIST-TO-HIP RATIO IS HIGH, KEEP IN MIND…

YOUR BODY FAT LEVELS ONLY REPRESENT AN IMPERFECT PROXY FOR YOUR METABOLIC HEALTH.

Body fat ranges—and the risks and benefits associated with them—are based on AVERAGES. To get information about YOUR health, get your doc to check blood pressure, fasting glucose, triglycerides, and cholesterol.

YOU DON'T NEED TO REACH THE "NORMAL" ZONE TO SEE SIGNIFICANT BENEFITS.

For most people, losing just 5-10% of their body weight improves blood sugar, cholesterol, and blood pressure. For a 250-pound person, that's 12 to 25 pounds.



EXTREME DIETS CAN WORSEN HEALTH.

Lack of protein and micronutrients can lead to malnutrition, plus muscle and bone loss. These diets are also difficult to maintain, so many regain lost weight. Finally, extreme dieting can erode mental health and increase the risk of eating disorders.

PEOPLE OFTEN MAKE THEIR BIGGEST PHYSICAL HEALTH IMPROVEMENTS THROUGH INDIRECT METHODS.

Decreasing stress and getting more quality sleep can regulate appetite and reduce cravings—and improve overall health. People who seek psychological counseling tend to keep more weight off long term than those who focus on nutrition or exercise alone.*

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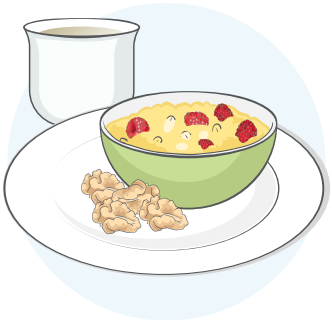
*Forman EM, Butryn ML, Juarascio AS, Bradley LE, Lowe MR, Herbert JD, et al. The mind your health project: a randomized controlled trial of an innovative behavioral treatment for obesity. Obesity. 2013 Jun;21(6):1119–26.

TRUTH #4: BODY FAT IS ONE SMALL PIECE OF A COMPLEX HEALTH PUZZLE.

ALL OF THESE LIFESTYLE FACTORS ARE JUST AS IMPORTANT.

SLEEP



NUTRITION

HAVING A SENSE OF MEANING AND PURPOSE

ALCOHOL CONSUMPTION

EXERCISE AND MOVEMENT

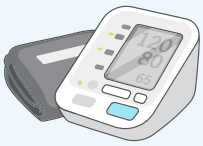
SOCIAL CONNECTION

CIGARETTE & DRUG USE

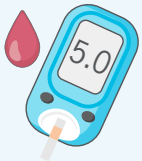
PLUS, BODY FAT ISN'T THE ONLY INDICATOR OF PHYSICAL HEALTH.

The following health metrics are also critical.

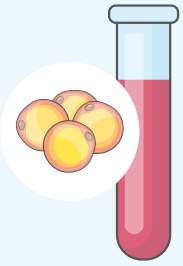
HEALTHY RANGE:



Blood Pressure
Below 120/80 mm/Hg



Fasting Blood Glucose
Below 100 mg/dl



Total Blood Lipids
Less than 200 mg/dl
LDL-C Less than 100 mg/dl
Non-HDL-C Less than 130 mg/dl
HDL-C Above 40 mg/dl for men or 50 mg/dl for women

HOW YOU FEEL ALSO MATTERS.

Consider whether your body size contributes to…

Pain that causes you to limit movement or exercise

Fatigue that interferes with daily activities

Snoring or sleep apnea that wakes you repeatedly and leaves you feeling unrested

FINALLY, YOUR PHYSICAL HEALTH IS MERELY ONE ASPECT OF YOUR OVERALL HEALTH.

Many health dimensions play vital roles in your overall well-being—or what we call "Deep Health."

RELATIONAL

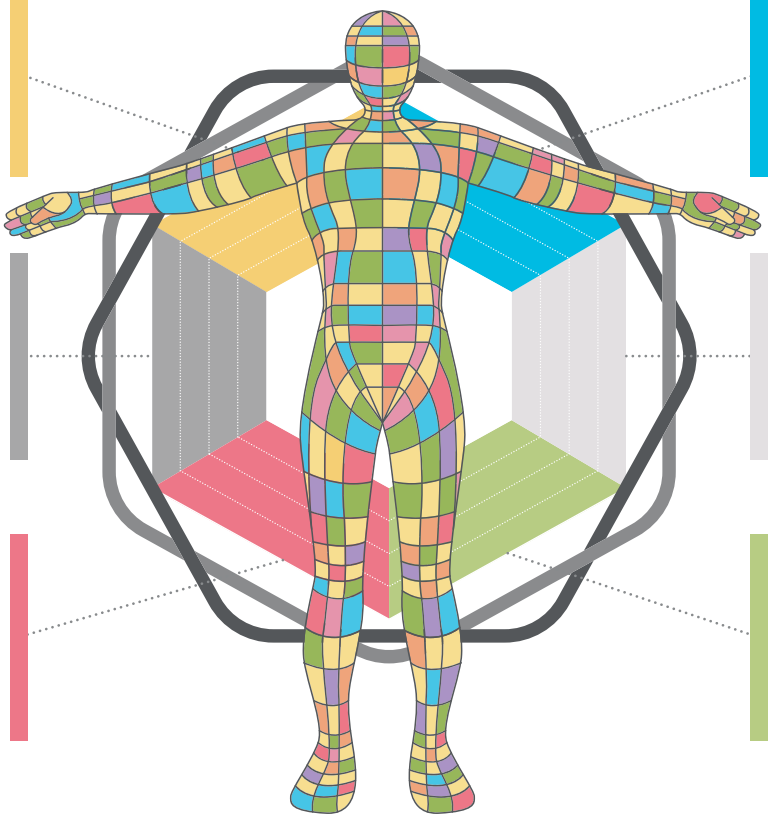
Being connected and authentic with others. Feeling supported and like you "belong."

EXISTENTIAL

Feeling a sense of meaning and purpose in life.

MENTAL

Being alert and focused. Learning, remembering, and solving problems well.



PHYSICAL

Feeling vibrant and energetic. Performing and functioning well.

EMOTIONAL

Experiencing a full range of emotions and expressing them appropriately.

ENVIRONMENTAL

Knowing your surroundings support your daily health and wellbeing.

YOUR BEHAVIORS AND ACTIONS HAVE THE MOST IMPACT ON YOUR OVERALL HEALTH—NOT YOUR BODY SIZE OR BODY FAT PERCENTAGE.

For the full article explaining this infographic, visit
https://www.precisionnutrition.com/is-body-fat-good-or-bad