

Body Composition Self-Assessment

Body Mass Index (BMI):

BMI is a useful measure of overweight and obesity. It is calculated from your height and weight. BMI is a simple and acceptable gauge of your risk for many conditions and diseases. An abnormal BMI (high or low), is associated with a higher risk for certain conditions and diseases such as heart disease, high blood pressure, type 2 diabetes, gallstones, breathing problems, and certain cancers.

BMI is a good measure when assessing a large group of people or doing a quick and simple assessment of an individual, although BMI does have some limitations:

- BMI is a height and weight measure and is not sensitive to individual's variance in muscle and body fat.
- It may over predict risk in heavily-muscled individuals.
- BMI is not sensitive to different types of body fat and not all fat confers the same risk to one's health.
- BMI is not sensitive to how an individual stores their body fat. Body fat in the trunk, and around organs carries a greater risk than stored on the extremities.

To consider fully an <u>individual's</u> body fat-related risk for health conditions and diseases BMI should only be part of the assessment.

Measure your height and weight and use the chart below to determine BMI &/or use the online calculator (link below):

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			No	rmal				Ov	erwe	eight			(Obes	e										Extr	eme	Obe	sity								
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Height (inches)															Body	/ Wei	ght (p	oounc	is)																
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295
63	107	113	118	124	130																											282				
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314
65	114	120	126	132	138																											300				
66					142																											309				
67																																319				
68	125		138																													328				
69					155																											338				
70																																348				
71	136		150																													358				
72			154			177																										368				
73					174											_																378				
74					179																											389			412	
75	152	160	168	176	184	192				224									295	303	311									383	391	399	407	415	423	431
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443

https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm

Source: Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.

Your BMI Number: ______, Your BMI Classification: ______

Classifications for BMI	
	BMI
Underweight	<18.5 kg/m ²
Normal weight	18.5–24.9 kg/m ²
Overweight	25–29.9 kg/m ²
Obesity (Class 1)	30–34.9 kg/m ²
Obesity (Class 2)	35–39.9 kg/m ²
Extreme obesity (Class 3)	≥40 kg/m²

Waist Circumference:

Measuring waist circumference helps screen for possible health risks that come with overweight and obesity. If most of your fat is around your waist rather than at your hips, you're at a higher risk for heart disease and type 2 diabetes. This risk goes up with a waist size that is greater than 35 inches for women or greater than 40 inches for men. To correctly measure your waist, stand, with your arms at your sides, feet together, and abdomen relaxed. Have a partner take a horizontal measure at the narrowest part of your torso above the umbilicus (belly button) and below the xiphoid process (bottom notch of your chest bone).

Record your Waist Circumference Measurement: ______ inches.

The table below will use your BMI and waist circumference together to assess the risk to your health that is related to your body fat. Using the table below locate the BMI column and find the line that corresponds with your BMI. Then follow that line over to the columns with the waist measurements and locate the column that corresponds to your waist size. The intersection between your BMI and your waist measurement in the waist column indicates your health risk based on the BMI and waist circumference together.

	BMI (kg/m2)	Obesity Class	Disease Risk* (Relative to Normal Weight and Waist Circumference)						
			Men ≤40 in (≤ 102 cm) Women ≤ 35 in (≤ 88 cm)	> 40 in (> 102 cm) > 35 in (> 88 cm)					
Jnderweight	< 18.5		100 C	-					
Normal†	18.5-24.9			-					
Overweight	25.0-29.9		Increased	High					
Obesity	30.0-34.9	1	High	Very High					
	35.0-39.9	II.	Very High	Very High					
Extreme Obesity	≥ 40	III	Extremely High	Extremely High					

* Disease risk for type 2 diabetes, hypertension, and CVD.

† Increased waist circumference can also be a marker for increased risk even in persons of normal weight.

Adapted from "Preventing and Managing the Global Epidemic of Obesity. Report of the World Health Organization Consultation of Obesity." WHO, Geneva, June 1997.20

Your Associated Disease Risk using BMI & Waist Circumference together: (circle)

No Increased Risk	
Increased Risk	
High Risk	
Very High Risk	
Extremely High	

BMI is a height/weight correlation to health risk and waist circumference adds a factor related to where you store your body fat to give a more meaningful interpretation of your health risk related to body fat.

Obesity-related conditions:

Another very important factor to consider when trying to assess your health risk related to body fat, is the presence or absence of health conditions that are caused, or are related to, increased body fat. Correlating your BMI and waist measures to obesity-caused conditions/diseases may actually be the best assessment possible.

Circle any of the conditions below that are caused, or related to obesity.

Obesity caused Conditions & Diseases:	Obesity Related Conditions & Diseases					
Sleep Apnea	Heart disease	Vascular disease				
Hypertension	High/abnormal cholesterol	Back pain				
Lower-extremity joint pain/disorder	Impotency	Breathing problems				
Diabetes (Type II)	Stroke	Cancers (certain)				
Exercise intolerance	Gallbladder disease	Metabolic syndrome				
Osteoarthritis	Liver disease					

If: 1) your BMI is high, 2) your waist circumference is high, 3) your combined BMI/waist risk is high <u>and</u> 4) you have one or more of the conditions in the left column or two or more of the conditions in the right columns you very likely have **high-risk** related to the amount of body fat you are carrying. If you lower the amount of body fat you are carrying you should absolutely improve the conditions in the left column and likely improve the conditions in the right columns. The presence of obesity caused, or related diseases and conditions in individuals with high-risk as determined by BMI and waist circumference is arguably the most accurate assessment of health risk related to body fat attainable.

Other methods:

Anthropometry: Skinfolds and circumferences measured with a Gulic Tape or inelastic tape.

Bioimpedance: Using electrical current to assess bod composition

Underwater weighing: Measuring bodyweight under water and correcting for air in lungs

Air Plethysmography: Measuring air displacement, (similar to underwater weighing)

Ultrasound: Using ultrasound imagery to assess body composition

DEXA: Using x-ray technology to assess body composition (DEXA is considered by most to be the "gold-standard method for assessing body composition). For more information visit http://www.wellpath.info/bodycomp.