

Low Back Pain and Obesity / Overweight

Studies have consistently shown the direct relation of obesity/overweight with developing low back pain problems. Studies have also shown that being obese/overweight worsens the progression of back pain. Patients who are obese/overweight tend to do poorly with treatments to alleviate back pain (physical therapy, medications, interventional pain procedures, surgery).

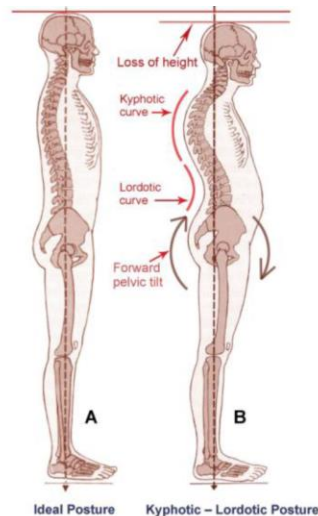
The criterion to determine if you are obese/overweight is determined by your BMI (Body Mass Index). The following chart will help you determine your BMI and if you fall into the category of being **overweight, obese or morbidly obese**. If you are in the obese and extremely obese category (orange to red in the chart), you are a high risk for developing back pain; if you already have on-going back pain problems, your prognosis for finding a solution to treatments is guarded to poor.

BMI HEIGHT	NORMAL					OVERWEIGHT					OBESE					EXTREME OBESITY																				
	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
4'10"	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	238	244	248	253	258
4'11"	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
5'0"	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
5'1"	100	105	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
5'2"	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
5'3"	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	276	282	287	293	299	304
5'4"	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
5'5"	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324
5'6"	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334
5'7"	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344
5'8"	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354
5'9"	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365
5'10"	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376
5'11"	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	336	343	351	358	365	372	379	386
6'0"	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397
6'1"	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408
6'2"	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420
6'3"	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431
6'4"	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

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

The reasons for this are explained as follows:

1. Being overweight/obese places **excessive loads on the spine** which then places undue stress on the moving parts of the spine, thus leading to mechanical and physical breakdown. The spinal disc degenerates faster leading to bulges and herniations and if the nerves in the spine are involved, sciatica pain then develops. In particular, a distended abdominal girth from obesity places undue strain to the lower back.



This diagram shows how a distended belly from being obese changes the alignment of the spine and pelvis, thus causing abnormal and harmful stress forces on the spine that leads to back pain problems

2. Obese individuals tend to have **sedentary lifestyles** compared to non-obese individuals. Inactivity leads to deconditioning or weakening of the muscles, ligaments and other vital structures that hold the spine together to give it strength; these structures then become prone to injuries at the slightest stress to the back. Also, from a combination of the undue mechanical stress and inactivity that comes with obesity, the discs degenerate rapidly and the joints of the spine (facet and sacro-iliac joints) degenerate and develop arthritic changes.

On the other hand, it has been shown that treatments for back pain work better when this is combined with a weight loss program. This is especially true for pain interventional and surgical treatments. When a patient is not overweight/obese, the chances for re-injury and recurrence of back pain are much less.

Weight reduction can be best achieved by any of the following 3 ways:

1. **Proper Daily Diet (avoid crash courses or those magical diet pills)**
2. **Regular Exercise Program (Aerobic)**
3. **Bariatric Surgery (in extreme cases and as a last resort)**

Proper diet and regular exercise in combination are the best methods to effectively lose weight over a sustained period with almost no risk or complication. Consult with your medical doctor if you have an on-going medical condition (heart problems, diabetes, etc) before embarking on a weight reduction program.