

Table 3: Average Changes in Fasting Insulin Body Weight, and Medication

Study	Diabetes Duration (years)	Diet Duration (weeks)	Fasting Blood Insulin (pmol/L)		Fasting Blood Insulin ( $\mu$ IU/mL)		Weight (kg)		Change in diabetes treatment
			Baseline	After Diet	Baseline	After Diet	Baseline	After Diet	
Jonker <i>et al</i> , 2014 (6)	9	16	163	69	23.5	10.0	BMI 35.3	BMI 27.5	All diabetes medication & insulin stopped
Snel <i>et al</i> , 2012 (8)	n.r.	16	169	88	24.4	12.6	113	89	all diabetes medication & insulin was stopped
Snel <i>et al</i> , 2012 (+exercise) (8)	n.r.	16	174	61	25.1	8.8	114	86	
Hammer <i>et al</i> , 2008 (14)	n.r.	16	271	69	39.0	10.0	BMI 35.6	BMI 27.5	all diabetes medication & insulin was stopped
Capstick <i>et al</i> , 1997 (20)	10	12	Uncertainty about insulin measurements reported				109	95	reduced diabetes medication & insulin
Lim <i>et al</i> , 2011 (11)	<4	8	151	65	21.7	9.4	104	88	all diabetes medication was stopped
Laferrère <i>et al</i> , 2008 (15)	2	8*	192	110	27.6	15.8	111	101	reduced diabetes medication
Plum <i>et al</i> , 2011 (12)	8	4.4*	115	105	16.5	15.1	122	111	reduced diabetes medication
Miyashita <i>et al</i> , 2004 (lower carbohydrate) (19)	n.r.	4	Uncertainty about insulin measurements reported				73	64	not taking medication
Miyashita <i>et al</i> , 2004 (higher carbohydrate) (19)	n.r.	4					71	64	
Jackness <i>et al</i> . 2013 (4)	5.7	3 <sup>†</sup>	96	47	13.8	6.8	114	95	n.r.
Urbanová <i>et al</i> , 2014 (3)	n.r.	2	263	260	37.8	37.4	BMI 52.9	BMI 49.4	insulin and/or sulphonylurea doses were reduced.
Mraz <i>et al</i> , 2011 (10)	n.r.	2	245	204	35.3	29.4	BMI 51.5	BMI 48.7	n.r.

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Dostalová <i>et al</i> , 2009 (13)	n.r.	2	138	84	19.8	12.1	BMI 50.9	BMI 48.7	n.r.
Malandrucco <i>et al</i> , 2012 (9)	5.2	1	76	69	10.9	9.9	114	111	all diabetes & blood pressure medication stopped

\* This study compared bariatric surgery to very low calorie diets, and they did this by matching the weight reduction of surgery patients with that of the diet only patients, so 4.4 weeks duration is just the average time it took volunteers to experience the required weight reduction, so some took more time and others less.

† This study had allowed volunteers to choose how long they stayed on the very low calorie diet. Three weeks was the average duration, but the range was 14–24 days.

Abbreviations: BMI – body mass index, which is weight divided by height; Kg – kilogram (1 kg = 2.2 lbs); m – meters (1 m = 3 feet 3 3/8 inches); n.r. – not reported, meaning the this information was not available in the published article.

A couple of studies reported measures of fasting insulin, but either didn't specify the method, or appeared to have mixed up their units. With no way of confirming what's what, I've decided to leave out the confusing results.

It's important to keep in mind that these are average changes, so some people will have experienced smaller changes and some larger ones. Also, some studies took volunteers off medication, including insulin, as part of the study protocol, whilst others modified medication as they went, so this may also explain some of the differences. Lastly there is the difference in duration of the studies.