

EU-Project SEAFOODplus YOUNG - Compliance to a weight loss diet and maintenance of a weight loss following a weight-reducing program in a cross-European intervention study

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Prevalence of overweight and obesity is increasing worldwide. To lose weight, energy consumption has to be lower than energy expenditure and the key to success is compliance to a weight-reducing program. Information on what predicts compliance in such programs and how well the weight loss is maintained in the following months, is important.

The aim of the present study was to define factors that predict why participants complete or drop out during a weight loss intervention and to assess long term maintenance of weight loss, following an 8-week weight loss intervention trial.

A total of 324 young (age 20 – 40), overweight (BMI 28-32 kg/m²) volunteers in three participating countries were recruited (140 in Iceland, 120 in Spain and 64 in Ireland). They were given qualified instructions to follow diets giving 30% less energy than calculated energy need for unchanged body weight. Weight and height were measured at baseline and at the end of the intervention and body mass index (BMI, kg/m²) calculated. Compliance to the intervention diet was assessed by two day weighed food records completed by each participant at the end of the 8-weeks intervention. Weight 6-12 months after the intervention trial was self-reported.

278 (86%) completed the 8-week intervention. Drop-outs were on average two years younger than those who completed the trial (p=0.005). No difference was observed in baseline weight, height or BMI between drop-outs and those who completed the intervention. The average weight loss was 5.2 kg (SD 3.1). Subjects consumed on average 17 kcal less than advised (NS). Information on weight 6-12 months after finishing the 8-week intervention was obtained from 67% of the Icelandic participants (42% of men and 58% of women). Table 1. shows the mean weight of the 71 participants in the follow-up at baseline, at endpoint and 6-12 months after finishing the intervention trial. Women had maintained their weight on average but the men gained on average 2.2 kg.

Table 1. Weight at baseline, endpoint and after 6-12 months (Iceland only)*

	ALL (n=71)		Male (n=30)		Female (n=41)	
	Mean	SD	Mean	SD	Mean	SD
Weight at baseline (kg)	90.7	10.7	99.5	9.2	84.3	6.1
Weight at endpoint (kg)	85.6	10.2	93.5	8.2	79.8	7.2
Weight after 6-12 months (kg)	86.4	11.4	95.7	8.5	79.5	7.8

*Including those who provided information on weight 6-12 months after finishing the intervention trial (67%).

High proportion of participants completing the intervention trial and good compliance to the diets suggests that the method used was well tolerated. Drop-outs were on average younger than those who completed the trial, but weight or BMI at baseline was not found to predict drop-outs in the present study. Women who provided information in the follow-up maintained on average their weight loss up to 6-12 months after finishing the 8-week intervention.