

# Effects of the ABC program on weight, metabolism and vascular function in obese type II diabetics

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## Question

The ABC program is an innovative program for weight loss. It combines 3 elements:

- (1) daily telemedical monitoring of weight and physical activity with weekly feedback by letter
- (2) an one-time training on a combination of diet
- (3) charges ([www.abc-diaet.com](http://www.abc-diaet.com)).

The effectiveness of this program was examined in a study in obese patients with diabetes mellitus type II.

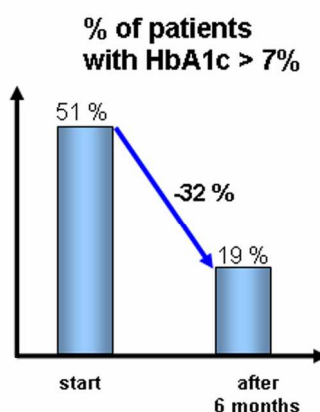
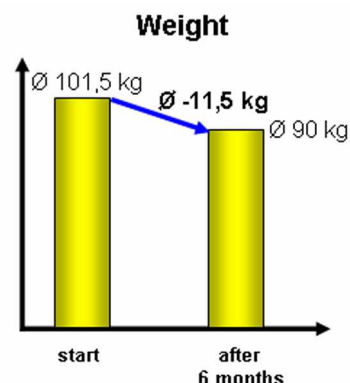
## Method

70 obese, type II diabetics took part in the 6-month study at the university hospital's lipid clinic. 35 patients (mean BMI = 35.3) received the ABC intervention, 35 patients (BMI = 34.8) served as a control group using standard treatment guidelines offered by their family doctors. For the telemonitoring of weight and physical activity, a device set of the company Aipermon (Munich) was used.

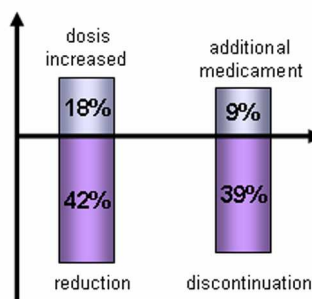
## Results

2 patients in the intervention group (6%) discontinued the study. After 6 months, the intervention group had lost 11.5 kilograms (mean). Weight loss correlated closely with mean physical energy expenditure ( $r = 0.57$ ,  $p = 0.001$ ). HbA1c and glucose decreased by 10% and 12% (both  $p < 0.001$ ). The proportion of patients with HbA1c >7% fell from 51% to 19%. The endothelial function of large arteries (measured as flow-mediated vasodilation of the forearm) improved by 0.3 percentage points ( $p = 0.02$ ). In 81% of patients, anti-diabetic medication was either discontinued (39%) or reduced (42%); with 18% of patients, the dose was increased and for 9% an additional drug was prescribed. In the control group discontinuation, dose reduction, new prescription or dose increase amounted to 9% each. Biochemically and functionally, there were no changes in this group except for a trend of increased HbA1c (plus 3%,  $p = 0.053$ ).

<b>Weight</b>	-11,5 kilograms	$p < 0,000$
<b>HbA1c</b>	-10%	$p < 0,001$
<b>Glucose</b>	-12%	$p < 0,001$



## Changes of medication after 6 months



## Conclusion

The ABC program is proving to be very effective for type II diabetics in terms of weight, metabolism, drug consumption, vascular function and compliance. It provides an additional and effective therapeutic option for treating these patients.

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