



Overweight and Diabetes

A successful plan – simple to start

The negative effects on your health and well-being caused by overweight and obesity are proven to be the cause for serious health consequences. Increased levels of BMI increase the chances of cardiovascular diseases, type 2 diabetes mellitus and cancer. High levels of BMI are also associated with arthritis and generally increased morbidity and mortality. In addition to these risk factors, most patients who are overweight or obese suffer from enormous psychological pressure. Since they are seen as unattractive and weak willed, they often give up on countless diets and end up gaining more weight than before through the yo-yo effect.

Today any diet intervention program has to have more to offer than unattractive barriers in the form of nutritional counseling, frustrating challenges to increase physical activity, and worst of all, having to say no to things you enjoy. Only a fundamental change of lifestyle shows lasting success and must therefore be long-term, which is almost impossible without the necessary motivation.

M.O.B.I.L.I.S. – the nationwide program with success...

The M.O.B.I.L.I.S. program supports this claim. It is based on the fundamentals of the Almased® research, especially the one year Almased®-Adiposity Study^{1,2,3}, a randomized clinical controlled study, developed by the labs of the Freiburg University and the Sports High School in Cologne.

...with special honors

In addition, health insurance companies were convinced by the quality of the M.O.B.I.L.I.S. program. The program has also been honored with the title “exemplary” by the Federal Centre for Health Education. Many health insurance companies refund the majority of the cost to those who participate in the program. The extremely convincing results from the Almased®-Adiposity Study show that those who participate in M.O.B.I.L.I.S. receive recommendation from M.O.B.I.L.I.S. experts to integrate Almased® into the program. Table 1 shows the superiority of a professionally supported Almased®-Adiposity program based on the results of the study and further research in comparison to the same program

without Almased®. Almased® has more than met the success criteria for the intervention target:

According to the DAG guidelines an intervention program becomes recommendable after one year when at least 20% of the participants show a weight loss of at least 10% and at least 50% of the participants show a weight loss of 5%.

Comprehensive – more than just a part

Almased® has proven surprising potential for weight loss, even to the experts. The unique multi-ingredient concentrate is based on soy, milk (probiotic yogurt) and liquid honey, rich in enzymes. In this way the individual ingredients in the product are not isolated, but rather react with each other during a special biotechnological manufacturing process.

6 months results of M.O.B.I.L.I.S.

■ from the first M.O.B.I.L.I.S. groups using Almased® (n=278)

total weight loss (average)

| | |
|------------------|----------|
| total | -7.4 kg |
| without Almased® | -6.5 kg |
| with Almased® | -10.7 kg |

Intervention weight loss target > 10%

| | |
|------------------|-----|
| total | 29% |
| without Almased® | 22% |
| with Almased® | 55% |

Table 1 Superiority of an Almased® supported Adiposity program



Result: An improved way to deal with diabetes

Studies on Almased* seem to set standards and have led to a further noteworthy result. A study⁴ lead by Prof. Dr. K. S. Zänker from the University of Witten-Herdecke showed that type 2 diabetics who integrated 50g of Almased* into their daily eating plan did not only lose weight, but also reveals that this change in eating habits leads to a significant improvement in specific diabetic metabolic rates (Graph 1). The levels of fasting blood sugar, insulin and HbA1c improved convincingly within 26 weeks. This Vital Nourishment is therefore to be recommended as a valid supplement for essential diabetes therapy. The study was carried out as a prospective 'open-label' field study. The duration of the study including a recruiting period was 32 weeks. 30 insulin independent women (oral medication and/or diet plan, average age 63.3 years old) and men (average age 63.8 years old) took 50g of the soy-yogurt-honey formula on a daily basis without changing their medication or lifestyle. At the beginning of the study the participants had usual lab tests taken on blood levels, such as fasting glucose, insulin, HbA1c and bodyweight. In addition, the study participants filled out a questionnaire on food tolerance and subjective well being. The information on 51 people could then be evaluated.

Within 26 weeks there was a reduction in:

- fasting blood glucose levels from an average of 167mg/dl to 127mg/dl
- HbA1c from 8.2 to 7.2 percent
- the measured fasting insulin levels from 20.7mU/ml to 10.6mU/ml

Almost by accident a realistic hope presents itself: dur-

ing the duration of the study, diabetics inadvertently lost between 2.5kg and 3.7kg in weight. All participants remarked upon the easy digestibility of the Vital Nourishment. These results prove the important fact that the Almased* Synergy* Diet has a very low glycemic index of 27. A meal with 50g only has a glycemic load of 4. This is an important prerequisite to optimally burn off fat. Therefore, the Almased* Synergy Diet is perfectly suited for diabetics for more than one reason!

The **effects of carbohydrates** on blood sugar are expressed with the glycemic index (GI). This index shows how carbohydrate rich foods can raise the level of blood sugar above normal. The glucose related increase in blood sugar equals 100. Therefore, a GI of 50 means that an increase in the blood sugar level from this food only produces half the increase of the glucose.

The GI indicates on a numeric scale the effect of increased blood sugar levels caused by the carbohydrate in a specific food, with respect to the effect of increased blood sugar levels caused by glucose (which according to the glycemic measurements has a reference value of 100). The GI index ranks carbohydrate rich foods according to their effect on increased blood sugar levels.

| Blood Sugar* | Insulin | HbA1c |
|--------------|------------|-------|
| 167 mg/dl | 20.7 mU/ml | 8.2 % |
| ↓ | ↓ | ↓ |
| 127 mg/dl | 10.6 mU/ml | 7.2 % |

*fasting blood sugar

Graph 1 Improvement in the reduction of diabetes during the course of the study. 50 g of Almased* were integrated into the daily diet. However, no change in lifestyle was noted.

Additional benefit: improved metabolism

Several synergetic influences on the metabolism explain these positive findings. In essence, there are four important criteria that are changed beneficially. These are the blood levels of leptin, insulin and cholesterol while retaining muscle mass and energy.

1. Leptin

The leptin level of the participants was clearly lowered during the intervention, along with the weight loss. Yet, the levels of leptin decreased more with the Almased[®] Synergy Diet than with weight loss achieved in traditional ways. It follows that there is a strong effect on leptin and a reduction in the leptin resistance that is derived from the beneficial contribution from Almased[®]. Since it is apparent that increased levels of leptin are the cause of obesity (disturbance in the hypothalamic system that controls hunger) and metabolic disorders, e.g. diabetes (insulin resistance, disturbance in the susceptibility of leptin receptors in peripheral organs), Almased[®] can have a positive effect on an important risk factor.

2. Insulin and carbohydrate metabolism

The concentration of insulin in the blood lowers significantly due to weight loss but mainly from the effects

of Almased[®]^{1,2}. Increased levels of insulin are recognized as an atherogenic and inflammatory risk factor, revealing that this effect has particular relevance to health issues. This can be explained with the purpose of insulin as a "storage hormone" regulating not only carbohydrate, but also fat metabolism. Higher insulin levels lead to storage of fat in fat cells, simultaneously the break down of fat and the use of fatty acids are restrained. Therefore, the aim of a successful diet must also be to reduce high levels of insulin and existing insulin resistance. A diet supplemented with Almased[®] is an important prerequisite for optimal fat burning.

3. Blood fat and atherogenic risk factors

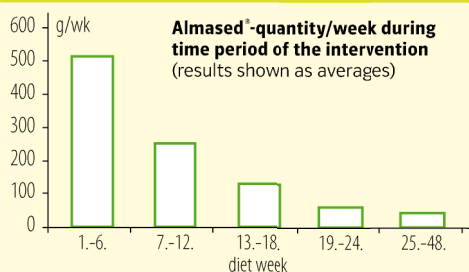
There is a significant reduction in total and LDL cholesterol through weight loss. In addition to this positive effect on the atherogenic lipid structure, there were also changes observed in the pro-inflammatory structure. The Freiburg study⁵ proved the interesting fact that within the fat metabolism the atherogenic lipoprotein apo-B, which is important for the blood vessel wall, reduced significantly more in the Almased[®] group than in the control group. Someone following a weight loss diet supplemented with Almased[®] is thereby predisposed to not only the reduction of increased blood lipids and inflammation markers, but also to a reduction in atherogenic risk factors.



substantial diet and no exercise. However, the muscle is the part of the body most crucial for energy transformation.

An important result from the Freiburg study is the now documented proof² that with an Almased[®] supplemented diet, loss of muscle mass as an undesired side-effect is not evident and also the thyroid gland function remains stable. Despite considerable changes in the composition of the body, the muscle mass stays the same and the signals for energy transformation are not down regulated. These are important conditions to avoid reducing the basal metabolic rate and falling into the well known dieting "yo-yo effect". Not only the energy measurements of the ergometer (watt/kg) rose but there was also a significant increase in the maximum energy level (watt max) for the Almased[®] diet group. This means an increase of the "will to move" and the feeling of increased vitality and quality of life in daily life.

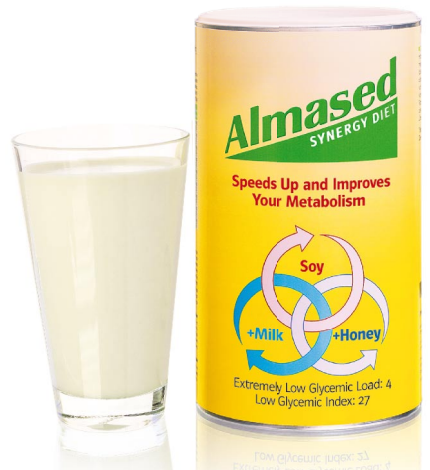
Almased[®]-quantity/week



Berg et al: Gewichtsreduktion durch Lebensstilintervention, Ernährungs-Umschau 52 (2005) Heft 8 (310-314); (translated: weight loss through lifestyle intervention Nutrition Review 52 (2005) Issue 8 (310-314))

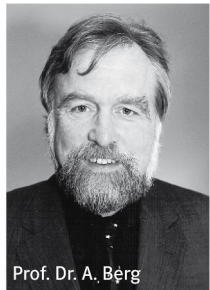
4. Muscle mass, basal metabolic rate and energy

From a nutritional medicine point of view the desired effect is to regulate bodyweight especially in conjunction with the improvement of the body composition. To prevent cardiovascular disease and metabolic disorders it is critical to reduce the proportion of body fat. A significant amount of muscle mass is lost with an in-



Conclusion

A significant improvement in body weight and proportion of body fat ($p < 0.002$) was attained with the lifestyle intervention lead by the sport medicine outpatient clinic with the



Prof. Dr. A. Berg

aim of weight loss among healthy adults. During the observation period this effect was seen in likewise significant improvements in the

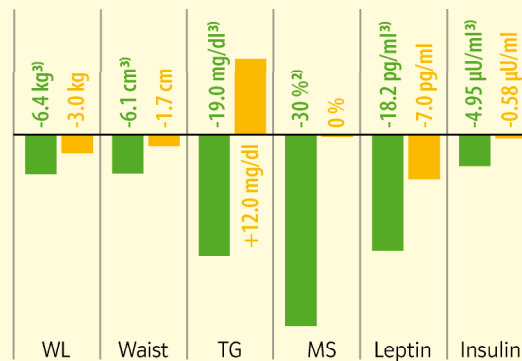
so-called pro-atherogenic parameters of the lipid and inflammatory structures. These improvements can be explained by primary changes of insulin and leptin. There was no negative evidence of a metabolic counter-regulation to be found within the time frame of the intervention.

Summary

The one-year Freiburg University study (department of Rehabilitation and Preventative Sport Medicine, headed by Prof. Dr. A. Berg) concludes that a weight loss diet supplemented with Almased® in comparison to a traditional weight loss diet shows clearly improved success of sustained weight loss. This simultaneously offers proven benefits to the body's anatomy, metabolism and energy.

Lifestyle intervention with and without Almased®

Results from the 90 participants after 6 weeks – the period with the maximum intake of Almased®



■ Diet program with Almased®
 ■ Diet program without Almased®

WL: weight loss
 TG: Triglycerides
 MS: Onset of Metabolic Syndrome in the group (change); figures are mean values

Notes:
 1) Strategy: 3 meals per day, Consumption of 2 Almased® meals and one normal meal per day
 2) $p < 0.05$
 3) $p < 0.01$

Source: Berg et al., submitted for publication

Almased®'s suitability within the framework of protein supplemented dieting

Almased® Vital Nourishment contains highly nutritive organic and easy digestible soy and milk protein with untreated honey rich in enzymes, combined through a patented process. That is how Almased® meets the standards of a protein supplemented diet in an ideal way. This also fulfills the requirement for the quantity and quality of

protein. Almased® Vital Nourishment is ideally suitable as part of a protein supplemented diet (also in combination with a food guidance).

Psyche and well-being

Practical experience reveals that the otherwise common observation of "moodiness" during a diet was not observed during the Almased® diet. Consequently, Almased® is often taken as a daily "good-mood-drink".

* Synergy: Nutrients that work better together

Sources:

- Berg A et al.: Gewichtsreduktion ist machbar. Ernährungs-Umschau 2003; 50 (10): 386-92. (translated: Weight loss is possible. Nutrition-Review 2003; 50 (10): 386-92)
- Deibert P et al.: Weight loss without losing muscle mass in pre-obese subjects induced by a high-soy-protein diet. Intern J of Obes 2004; 28: 1349-52
- Berg A et al.: Gewichtsreduktion durch Lebensstil-intervention. Ernährungs-Umschau 2005; 52 (8): 310-14. (translated: Weight loss through lifestyle intervention. Nutrition-Review 2005; 52 (8): 310-14.)
- Zänker KS et al.: Diabetes Typ-2-Mellitus und Krebs – eine ernährungsorientierte Interventionsstudie. Dt Z f Onk 2005; 37: 114-21. (translated: Type 2 Diabetes Mellitus and Cancer

- an intervention study based on nutrition. Dt Z f Onk 2005; 37: 114-21.)

5. Müller HM et al.: Einfluss einer definierten Reduktionsdiät auf Körperkomposition, Stoffwechsel und Entzündungsreaktion. Dt Z f Sportmed 2000; 51 (1): 39. (translated: The Influence of a defined weight loss diet on body composition, metabolism and inflammatory reaction. Dt Z f Sportmed 2000; 51 (1): 39.)

Imprint: Publisher: Almased USA, Inc., 2861 34th Street South, St. Petersburg, FL 33714, 1-877-ALMASED www.almased.com Notes by: Pharmacist Rudolf Keil, Grevenbroich, Germany. Editor: Rosemarie Zundler, Med-Pharm. Responsible for communication, Stuttgart. Illustrations: Almased Wellness GmbH, picture-box Jupiter 04/06.

Please send me:

- K.S. Zänker et al.: Type 2 Diabetes Mellitus and Cancer (9/2005)
- P. Deibert et al.: Weight loss without losing muscle mass in pre-obese and obese subjects induced by a high-soy-protein diet (10/2004)
- Almased®-Magazine
- Almased®-Samples – free**

Simply fax this page to us:

Fax 727-866-1438

Office stamp