

Scientific research on Almased[®]

Scientific information



The most important studies on the
effects of Almased[®]

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Why Almased® is conducting extensive research on the effects of the Almased® Synergy Diet

Dear readers,

The Almased® success story began at a kitchen table in the German town of Bienenbüttel in 1980: This is where my father, the holistic therapist Hubertus Trouillé, blended a recipe that was intended to help his many patients with a slow metabolism. He wanted to develop a product that activates the metabolism biologically. My father's goal: People have to feel noticeably better when they take the product.

He realized that activating the metabolism of overweight people automatically results in the reduction of unhealthy body fat. This "side effect" is the main reason why many people use Almased® today.

Almased® has become Germany's best-selling diet product: A powder made from high-quality soy, probiotic yogurt and especially enzyme-rich honey. Blending the raw ingredients during a fermentation process causes a synergistic effect, the ingredients increase each others' effectiveness.

Since 1999, we have fostered scientific research on Almased®. Scientists have discovered that certain qualities of soy, natural raw honey and probiotic yogurt have positive effects on the metabolism, improve sleep and regeneration, and that they can even help prevent a number of diseases, such as diabetes, lipid metabolic disorders and osteoporosis as well as inflammatory diseases. Because of these findings, I decided to have more intensive research done on Almased® and the effectiveness of its ingredients.

Today we have study results from several renowned universities. They not only confirm the positive effects of Almased® on body weight but also on the metabolism, performance levels and many diseases. This brochure provides an overview over the status of our research. And I believe that it proves my thesis: Almased® has important benefits for our society. It is not a short-lived fad diet but has long been part of a healthy lifestyle for many people.

Read for yourself.
Sincerely,

André Trouillé

André Trouillé,
President, Almased USA, Inc.



What is Almased®

How all-natural Almased® can benefit the body, how it works and how it helps to control hunger for a long period of time.

Almased® is made from high-quality soy, probiotic yogurt and natural raw honey. Honey enzymes, protein, bioactive phytochemicals from the soy, and yogurt cultures are the most important ingredients.

Almased® provides the body with essential nutrients that regular food often no longer contains in sufficient amounts. Combining the raw ingredients causes a synergistic effect: The components of one ingredient intensify the effects of the other ingredients. An innovative food item is created: Almased®.

All-natural: Almased® is made from high-quality soy, probiotic yogurt and natural raw honey.



- Optimizes the metabolism
- This increases the fat burning process while retaining muscle mass
- People who drink Almased® have more energy and strengthen their immune system as well as their muscles
- Almased® can be combined with all popular diets and has been proven to increase their effectiveness

Renowned researchers have proven that Almased® can do more than just support weight loss: Almased® fights obesity, positively influences blood pressure as well as insulin resistance and improves the fat metabolism. Consuming just 50 g of Almased® daily already improves the metabolic biomarkers.

Scientific studies have also been conducted about the effects of Almased® on hunger and satiety, blood pressure, kidney function as well as the level of the growth hormone GHG, which fosters a youthful look.

Over 10 years of research

All core claims about Almased® have now been scientifically proven: Nine scientists formulated 10 statements.

Almased® can do more than just support weight loss. This is the conclusion of nine German scientists that have researched the effects of the powder. They have unanimously formulated the statements on the following pages. From fat loss and muscle mass retention to the positive effects on hormone levels and blood pressure and therefore the metabolic syndrome - they confirm all core claims made about Almased®.

The metabolic syndrome is a combination of medical disorders, which – when coinciding – are sometimes referred to as the “deadly four”: Overweight, lipid metabolic disorders, high blood pressure as well as insulin resistance. Each of these conditions is a major risk factor by itself, but when combined, they can be life-threatening. Almased® has positive effects on all four of them.



All important claims have been proven through scientific studies: Research has been done on Almased® for over 10 years.

This is what these scientists say unanimously:

Almased® fights weight problems, high blood pressure, cholesterol and diabetes.

- Almased® contains pure soy protein, yogurt and raw honey. A special processing method preserves the essential amino acids in Almased®.
- Almased® has a positive effect on the body fat vs. muscle mass ratio. If combined with physical activity, it can significantly reduce fat deposits in the abdomen and hip area.
- Almased® lowers high insulin levels significantly while stimulating fat reduction and inhibiting fat storage.
- Obesity is associated with a severely increased leptin level, which in turn is linked to insulin resistance and considered a cause of metabolic disorders, such as diabetes mellitus. Almased® lowers the leptin level, thus influencing risk factors favorably.
- In a weight loss program, Almased® helps to exclusively burn body fat without reducing muscle mass.
- A weight loss program using Almased® lowers systolic and diastolic blood pressure.
- The tissue hormone ghrelin, which is produced by stomach cells, is an indicator of the sensation of satiety. Almased® lowers the ghrelin level, thereby reducing appetite sustainably.
- Weight loss achieved with Almased® is helpful in changing nutritional behavior and keeps the weight off long-term.
- Taking 50 g of Almased® per day considerably improves blood levels (e.g. blood sugar, HbA1c value) in people with diabetes.
- A weight loss program induced by Almased® lowers LDL-cholesterol and triglyceride levels while raising HDL-cholesterol levels.

These nine scientists drafted the theses on the left.



Professor Aloys Berg, MD Department of Medicine, University of Freiburg



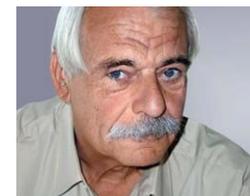
Professor Ulrich Borchard, MD Institute of Pharmacology and Clinical Pharmacology, University of Düsseldorf



Wolfgang Grebe, MD Board member of Association of German Specialists in Internal Medicine (BDI), Frankenberg



Professor Günter Linss, MD Medical Director of Henningsdorf Medical Center, University Teaching Hospital of the Charité Berlin



Peter Sauermann, Medical Consultant Chairman of Financial Committee of German Association of CHI Physicians (KBV)



Professor Jörg Schulz, MD Consultant of HELIOS Medical Center, Berlin-Buch



Tobias Teufer, PhD Law Office for Food and Pharmaceutical Law, Hamburg



Professor Gerhard Uhlenbruck, MD Director of Institute of Immunobiology and Sports Immunology, University of Cologne



Professor Burkhard Weisser, MD Director of Institute of Sports and Science of Sports, Christian Albrechts University, Kiel

Effective weight loss with Almased®

The metabolism activator is a superior food item, reduces fat and retains muscle mass.

Hubertus Trouillé, holistic therapist and inventor of Almased®, wanted to help his patients improve their metabolism with the Almased® powder. At first, he categorized all other positive effects under “side effects”, including the reason most people purchase Almased® today: Almased® makes it easy to lose weight because it keeps you full for a long time while being low in calories and because it improves the fat burning process.

diets that include Almased® compared to regular weight loss programs. In 2000, a study conducted at the University of Freiburg, Germany, showed the effectiveness of a diet with Almased® on body weight and body contour: Twelve overweight participants had Almased® for breakfast and dinner as well as a regular, low-fat lunch for four weeks. The participants lost an average of 4.8 kg (10.6 lbs). Researchers attributed the fat reduction to positive changes in the regulative variables insulin and leptin¹.

The first scientific studies requested by André Trouillé, son of the Almased® inventor, researched and validated the superior effect of

In 2004, another research team from the University of Freiburg, Germany, examined the effects of the Almased® diet on body composition.

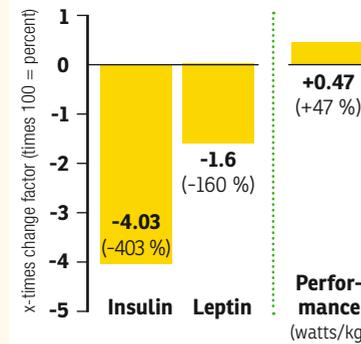
Superior diet success with Almased®: High fat loss without loss of muscle mass.



Significant advantages through intervention with Almased®

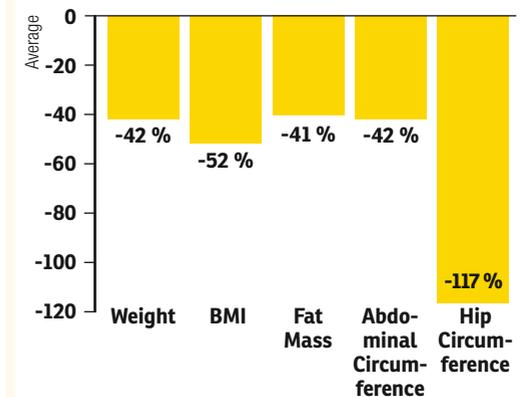
After 6 months on the Almased® diet program compared to a diet program without Almased®

Hormonal Regulation



Insulin Reduction $p_{(exact)} = 0.012$ Performance Increase $p_{(exact)} = 0.054$
 Leptin Reduction $p_{(exact)} = 0.012$

Physical Reaction



A/D*	0.011	0.012	0.018	n. a.***	0.002 $p_{(exact)}$
A+S/D**	0.015	0.023	0.018	n. a.***	0.018 $p_{(exact)}$

*A/D: Diet program including Almased® compared to a diet program without Almased®

** A+S/D: Diet program including Almased® and exercise compared to a diet program without Almased®

*** n. a.: not analyzed

1 Berg A et al. Using Almased in an Enriched Soy Diet for Weight Loss. German Journal of Sports Medicine, 2000, 51:39.

The six-month study confirmed that the participants lost fat and, unlike with other diets, also retained muscle mass².

A 2005 comparative study proved the superior success of a diet including Almased[®] compared to several conventional diet programs: After twelve months, the Almased[®] diet resulted in greater weight loss than popular programs such as Weight Watchers and Atkins³.

Almased[®]'s superior weight loss success

Almased [®]	6.9 kg
Ornish	3.3 kg
Zone (40-30-30)	3.2 kg
Weight Watchers	3.0 kg
Orlistat	2.9 kg
Atkins	2.1 kg

² Deibert P et al. Weight loss without losing muscle mass in pre-obese and obese subjects induced by a high-soy-protein diet. International Journal of Obesity, 2004 Oct, 28(10): 1349-52.

³ Dansinger ML et al. Comparison of the Atkins, Ornish, Weight Watchers and Zone Diets for weight loss and heart disease reduction. JAMA 2005; 293: 43-53. Berg A et al. Weight Reduction through Lifestyle Intervention.

"We know today that Almased[®] improves the fat burning process"

An interview with **Prof. Dr. Aloys Berg**, Department of Medicine, University of Freiburg, Germany.

Professor Berg, about 10 years ago you conducted the first major study on the effects of Almased[®]. What caused your interest in the Almased[®] Synergy Diet back then?

My main medical interest was the prevention of metabolic disorders connected to malnourishment and inactivity. Obesity was and is a big challenge. Many overweight people are highly motivated but cannot find a successful and practical way to lose weight. I learned about Almased[®] from dieters that had successfully lost weight with Almased[®] and I was curious whether these subjective experiences could be explained with objective findings. That was the beginning of a successful scientific cooperation between the University of Freiburg, Germany, and Almased Germany GmbH.

Many products promise help with weight loss. From your point of view, what is truly important? What does a product have to do to contribute to healthy and effective weight loss and therefore be recommendable?

There are several prerequisites that a product has to meet in order to be considered a successful and healthy weight loss supplement. First of all, it has to be possible for a person to successfully lose more than 5% of the starting weight, regardless of age and gender, with a reasonable effort and within a reasonable time frame. At the same time, the process has to be reproducible and predictable. This can only be proven with controlled and randomized studies with defined goal parameters. After all, the success should not only affect weight loss but also body composition and the typical risk factors that accompany overweight in most cases. It is self-explanatory that weight loss should not be accompanied by unwanted side effects.

In a second major study you researched the effects of the Almased[®] diet on body composition. Why is there no loss of muscle mass, unlike with many other common diets?

The phenomenon that Almased[®] helps retain muscle mass despite significant weight loss has been proven in several studies at the University of Freiburg, Germany. Today, we know that Almased[®] is a protein-rich product



Prof. Dr. Aloys Berg,
Rehabilitative and Preventive Sports
Medicine, University Clinic Freiburg,
Germany

made from fermented soy, skim milk yogurt powder and honey that promotes fat burning and simultaneously induces a hormonal protection against the loss of muscle mass. This "anti-catabolic" effect of Almased[®] can be held responsible for the positive effects on the body composition.

In an additional study, you proved that a diet with Almased[®] has positive effects on the risk factors of the metabolic syndrome, more so than a regular low-fat diet. What is the explanation for this?

We have shown that when losing weight with Almased®, both the insulin level and the leptin level decrease significantly after only 6 weeks. This is very likely caused by the fact that Almased® resets the metabolism and the body develops a better response to these neurotransmitters in the appetite center of the hypothalamus and reduces the release of these substances from the pancreas and

the fat tissue. As a result, the known risk factors for metabolic syndrome that accompany overweight can be significantly reduced.

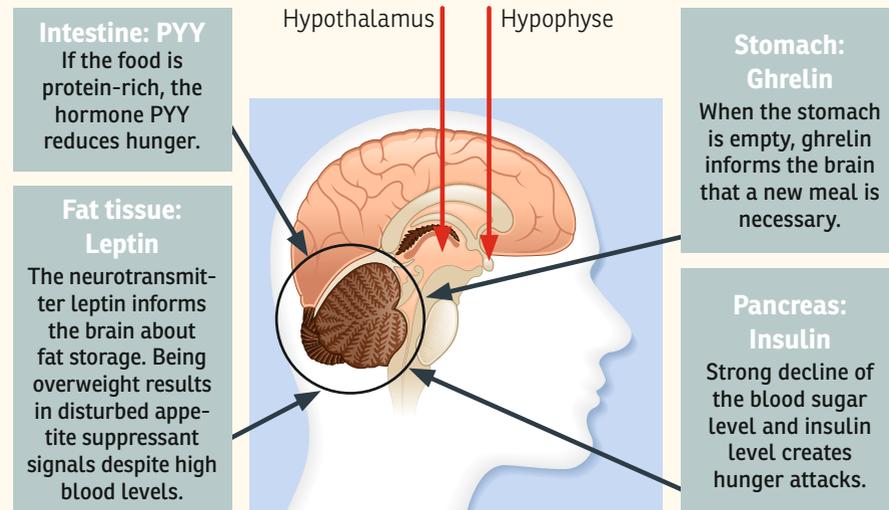
Meanwhile, studies have shown that diets including Almased® have positive effects on a number of biochemical parameters, for instance the insulin level, but also on body values like overall well-being and quality of life. The

effects are more positive than can be explained by just the weight loss itself. Do you have a suspicion about what might cause these various effects on health?

We can assume that Almased® not only has positive effects on the metabolism and body composition but also on cognitive and mental functions. We believe that Almased® triggers central mechanisms in the hypothalamus that are

responsible for these complex changes and also influence factors like mood, reaction to environmental stimuli and the ability to concentrate. These effects are not as important in the medical sense as the reduction of risk factors, but for those who are affected they are just as important for their quality of life. We hope that we can produce more findings about Almased® in this context in the future.

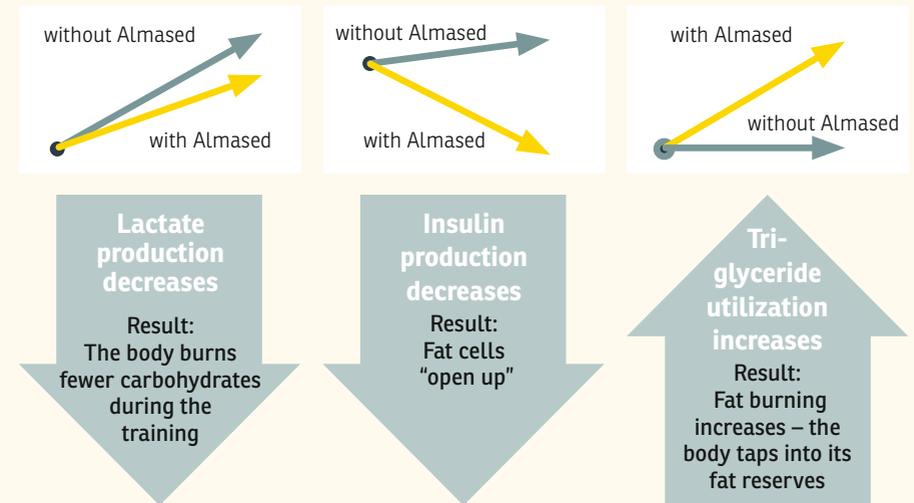
The key factors of appetite regulation: Almased® influences the neurotransmitters and thus decreases appetite.



As a protein-rich meal replacement Almased® supports acute and chronic appetite regulation through four important central neurotransmitters resulting in successful appetite suppression: Neuropeptid Y (PPY), leptin, ghrelin and insulin.

Source: Berg A et al. Favorable metabolic properties of a soy-honey-yoghurt product for meal replacement in overweight subjects with atherogenic risk. *Atherosclerosis* 2008; 9:253.

Adjustments in the energy metabolism during endurance training: Almased® increases the fat burning process



With identical training conditions, consuming Almased® (2 x 50 g daily) in a controlled and randomized design has a positive effect on the adjustment of energy supply in the sense of increased utilization of fat reserves and decreased stress-induced insulin release and lactate production with simultaneously improved utilization of triglycerides.

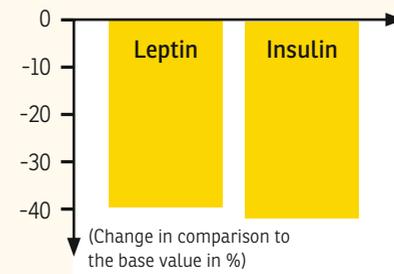
Source: Berg A et al. Influence of a protein-rich supplement (Almased®) on the stress-induced energy allocation. In preparation for the presentation at the annual conference of the German Obesity Society, 6.-8. October 2011, Bochum.

Almased® keeps you full longer

Studies show that Almased® lowers the levels of hormones that influence the feeling of satiety.

Satiety and hunger in humans are controlled by a very complex mechanism. The center of the system is located in the brain, in the hypothalamus. This is where the signals from stomach, intestine and cerebrum come together. Three hormones that are transported via the bloodstream play a major role in this: Ghrelin, leptin and insulin. Ghrelin is released when the stomach is empty and signals the brain: Hunger. Leptin reports to the hypothalamus about the level of fullness of the body's fat cells. To achieve satiety and optimal fat burning, insulin has to be stabilized at a low level. The longer the insulin level remains low after consuming food, the longer a person feels full. Studies show that Almased® has exactly this effect.

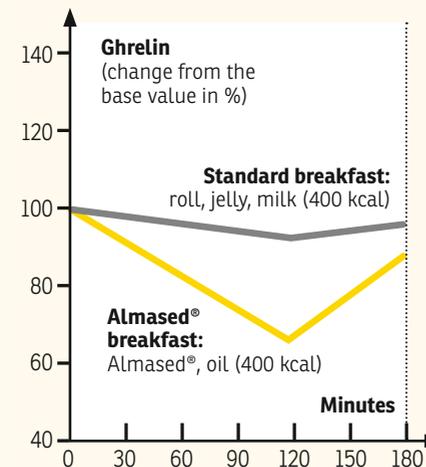
Almased® lowers the leptin and insulin level by approx. 40%



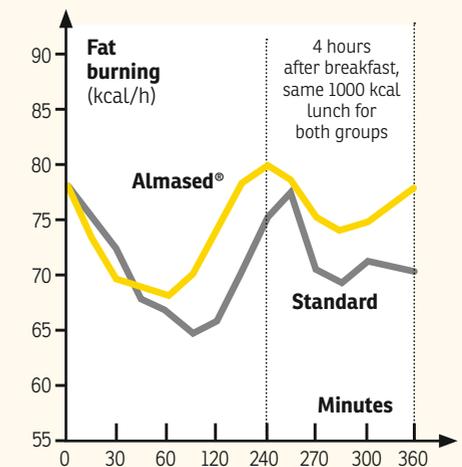
In a study with 25 overweight women researchers of the Department of Sports Medicine at the University of Freiburg, Germany, proved that a diet with Almased® not only results in weight loss and improved body composition but also lowers the leptin and insulin levels. On average, insulin and leptin levels in the participants decreased approx. 40% over the course of the 24-week long diet with Almased®¹.

The "Breakfast Study" shows:

Almased® keeps you full longer and optimizes the fat burning process



In the so-called "Breakfast Study", researchers at the University of Freiburg, Germany, investigated the effects of an Almased® breakfast on the insulin and ghrelin level in the blood compared to a regular breakfast with a high amount of carbohydrates and low protein content. It was shown that after 4 hours, insulin



as well as ghrelin levels of the participants that had Almased® were noticeably lower. Furthermore, the fat burning process was significantly higher. The hormone ghrelin controls the feeling of satiety - a low level means satiety. A low insulin level ensures that hunger pangs can be avoided².

¹ Berg A et al. Presentation at the 11th International Obesity Conference in Stockholm, July 2010.

² König D et al. Fuel selection and appetite regulating hormones following intake of a soy protein based meal replacement. Nutrition 2011 (in press).

Almased® can help people with diabetes

People with diabetes have a hard time losing weight because of their high insulin level. Almased® can help them.

Almost 24 million people in the United States suffer from diabetes. Because of their high insulin level it is hard for them to lose weight. Most people have type 2 diabetes. Type 2 diabetes is a metabolic disorder that mainly occurs in overweight people. The body produces insulin but the cells do not react to it in a regular manner. They absorb too little glucose and the blood sugar level increases. The body reacts by producing more insulin to normalize the blood sugar level. The high insulin level fosters the storage of fat and inhibits fat reduction.

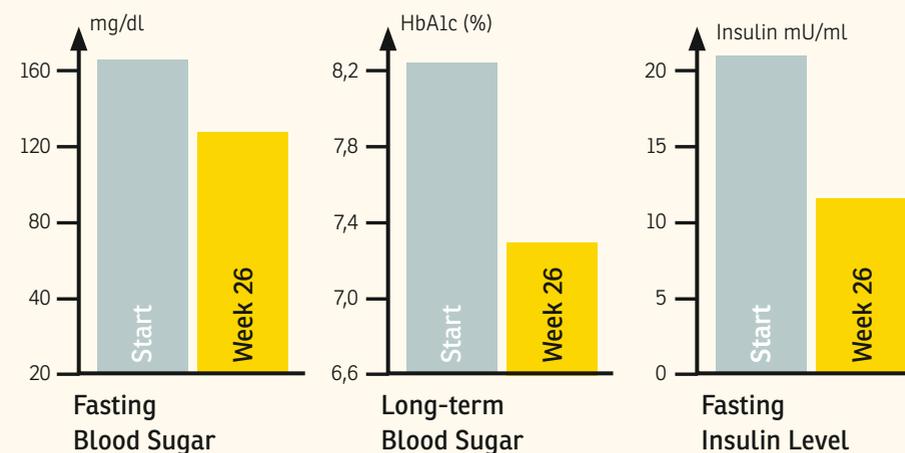
Almased® can help with this: It has been proven that a diet with Almased® can lead to higher weight loss, especially in the abdominal area. This means that a diet with Almased® regulates the satiety mechanisms in the brain as well as the fat burning process more effectively than a diet without Almased®. This was proven for the first time in a 2005 study which showed that people with diabetes

can lose weight significantly with a diet that incorporates Almased®. Additionally, the study showed that the blood sugar level as well as the insulin level decrease (see chart on the right).

The argument for using Almased® to treat overweight people who have diabetes is supported further by a study of the Cochrane Collaboration, an independent worldwide network of scientists, doctors and other medical professionals. Their goal is to scientifically assess medical therapies. The study comes to the conclusion that a diet with a low glycemic index (it indicates the effect of a food item on the blood sugar curve) is superior to other diets. Almased® has an extremely low glycemic index of 27 (compared to potatoes at 78 and glucose at 100)¹.

A recommendation by the renowned Joslin Diabetes Center also supports the argument for Almased® consumption:

Surprising success with diabetes mellitus



Zänker KS et al. Type 2 diabetes mellitus and Cancer. German Journal of Oncology 2005; 37:114-121.

The experts suggest that people with diabetes consume a diet consisting approximately of 40% carbohydrates, 30% fat and 30% protein. The researchers at Joslin also discovered that a diet needs to contain significantly more protein than what had been assumed until now in order for it to be

effective for people with diabetes. A diet according to the Almased® concept – two Almased® shakes with 50 g powder each, 45 g oil and one healthy, protein-rich meal per day – provides people with diabetes with exactly the recommended mix of protein, carbohydrates and fat².

1 Thomas DE et al. Low glycaemic index or low glycaemic load diets for overweight and obesity. The Cochrane Library 2007, Issue 3. Hamdy O et al. Protein Content in Diabetes Nutrition Plan. Curr Diab Rep DOI 10.1007/s11892-010-0171-x. Feinman RD. Fad Diets in the Treatment of Diabetics. Curr Diab Rep DOI 10.1007/s11892-011-0178-y.

2 Joslin Diabetes Center & Joslin Clinic. Clinical nutrition guideline for overweight and obese adults with type 2 diabetes, prediabetes or those at high risk for developing type 2 diabetes. 03/29/2007.

“Low insulin and blood sugar levels with Almased®”

Prof. Dr. Daniel König talks about the effect of the Almased® diet on people with diabetes.

People with diabetes have an especially hard time losing weight. How does Almased® make weight loss possible for them?

It is indeed correct that successful and permanent weight loss is not easy for overweight people with type 2 diabetes. Many studies have shown that people with diabetes lose less weight and lose it more slowly than overweight people who do not have diabetes.

An important reason for this is insulin. Insulin is responsible for ensuring that sugar from the food that is consumed moves from the blood to the cells. In people with type 2 diabetes, the cells' sensitivity to insulin is lowered and the insulin level increases as a regulatory counter mechanism. Because of their lower sensitivity to insulin, many people with type 2 diabetes have to take medication that increases the body's release of insulin, or they have to inject insulin. However, high insulin levels slow down the fat burning process and cause the organism to store fat, which results in weight gain.

The success of Almased® for weight loss in people with type 2 diabetes can be contributed to Almased®'s low glycemic index as well as its high protein content.

Why should people with diabetes choose food items with a low glycemic index to lose weight?

The glycemic index indicates to what extent a certain amount of food containing carbohydrates increases the blood sugar level over a period of two hours compared to glucose. A low glycemic index equals a low increase in the blood sugar level during the time after the food is consumed. It is important for people with diabetes that a low increase in the blood sugar level also means a lower demand for insulin. Regarding weight loss this means that the fat burning process functions better because of the lower insulin level, thus weight loss is easier. Some studies have shown that in comparison to a “typical” breakfast consisting of white bread and jelly, blood sugar and insulin levels were significantly lower after an Almased® shake and the fat burning process was significantly higher during the study period.

People with diabetes who lost weight with Almased® often report that they no longer have to take medication to lower their blood sugar. How can this be explained scientifically?

Weight loss as well as the protein and phytochemicals in Almased®, flavonoids for instance, improve the sensitivity of the insulin receptors. As a result, the body's own insulin suffices to keep the blood sugar level in an acceptable range even without medication.

Protein-rich diets used to be under the suspicion of increasing the risk for cardiac diseases. Now the Joslin Diabetes Center recommends a 30% protein content in the diet. Do you share this opinion? And if yes, why?

Protein-rich diets were criticized mainly because their high protein content came from animal protein. This also meant an increased intake of animal fat and saturated fatty acids which many scientists consider to be the reason for arteriosclerosis and heart attack. If the high protein content comes from plant protein, such as soy



Prof. Dr. Daniel König
from the University Clinic Freiburg, Germany works, among other things, on the investigation and practical implementation of lifestyle intervention concepts on physical activity and nutrition

protein, these arguments can no longer be sustained. A higher protein content results in a longer and better feeling of satiety and optimizes the calorie burning process, the so-called thermogenesis. Furthermore, a sufficient consumption of protein fosters muscle growth. Muscles are the most important organ for energy consumption.

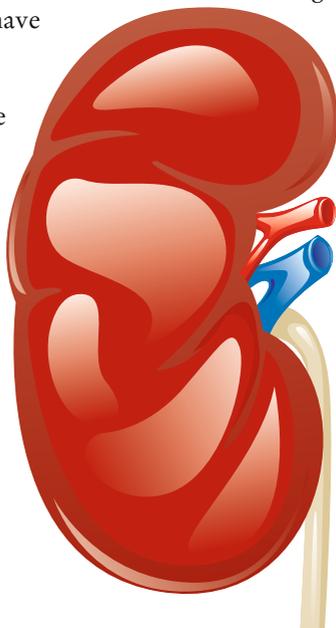
Almased® is “kidney safe”

A study has shown that a protein-rich diet with Almased® does not have a negative effect on kidney function.

The human kidneys filter the blood and excrete contaminants, including urea and uric acid, which are by-products of the body’s protein utilization. Therefore, some people fear protein-rich diets because they argue that such a diet would stress the kidneys. Studies have shown that a diet with Almased® does not strain the kidneys and that elderly people with decreasing kidney function and people with limited kidney function do not have to worry: Almased® is “kidney safe”, the high-quality soy protein in the powder does not stress the kidneys.

A study conducted by researchers at the University of Freiburg, Germany, with overweight patients that suffer from metabolic syndrome (overweight, lipid metabolic disorders, high blood pressure and insulin resistance) showed that the protein-rich Almased® diet (0.3 g protein per kg body weight daily) did not affect the kidney function of the participants negatively. The researchers even argued that the Almased® diet protects the kidneys in the long run and relieves them, because it reduces the levels of the hormones leptin and insulin in the body and thus reduces the risk of kidney damage¹.

The high-quality soy protein in Almased® does not stress the kidneys.



Deibert P et al. Acute effect of a soy protein-rich meal replacement application on renal parameters in patients with the metabolic syndrome. Asia Pacific Journal of Clinical Nutrition. 2011; n=10/10.

“The high-quality soy protein in Almased® does not damage the kidneys”

An interview with the consulting physician for nutritional science, **Dr. Peter Deibert**.

Rumor has it that protein can damage the kidneys – is this prejudice true?

It is indeed true that high protein consumption puts strain on the kidneys. This stress can lead to long-term kidney damage. Animal protein is said to be especially straining. Poultry is less harmful than pork and fish is even better. Plant protein puts the least strain on the kidneys and soy protein is said to be the best one. However, we also need to factor in the general kidney condition. A healthy kidney obviously reacts differently than the



PD Dr. Peter Deibert,

Consulting physician for internal medicine and gastroenterology, nutritional science, sports medicine, cardiovascular preventive medicine, lipidologist. Approbation 1991, senior physician at the University Clinic Freiburg

kidney of an ill person. Over the past year, we have investigated how kidneys of patients with metabolic syndrome – a combination of overweight, lipid metabolic disorders, high blood pressure and insulin resistance – react to protein intake compared to kidneys of healthy people. We found that the kidney filtration rate in patients with metabolic syndrome was increased on an empty stomach even when they had completely normal kidney values. With increased protein intake, the filtration rate continued to increase, which made the strain on the kidneys even worse.

However, giving one serving of Almased® as a meal replacement did not result in a significant change. These scientific findings were recently published.

What about a protein-rich diet for people with diseases – like people with diabetes or kidney problems, including those that have to have dialysis?

Medical science has been discussing this for the past decades. A diet low in protein used to be recommended to protect the kidneys but that caused even worse muscle loss in some kidney patients who already lose protein through their kidneys. Today it is assumed that patients definitely need the regular daily recommended dose of protein, especially in the form of high-quality protein. By choosing the right protein sources, excessive stress of the ill kidneys can be avoided. Protein supplementation beyond that is not recommended. The same applies for healthy people. It has also been shown that high amounts of protein that are often consumed by athletes do not have any benefits.

Kidney function in elderly patients slows down. Is a protein-rich diet dangerous for the elderly? After all, they are supposed to consume more protein to avoid age-related muscle loss. Is this correct?

As long as the kidneys function normally, the daily protein requirements should be met. The quality of the consumed protein is important. We have shown that Almased® supplementation combined with exercise improves the strength and metabolism of the elderly. Especially at an older age, high-protein supplementation is important to retain muscle mass and muscle function. Malnutrition is not uncommon at old age. Therefore, it is important to ensure sufficient supplementation with high-quality protein in this phase of their life. This does not harm a “healthy” older kidney. These study results have also been recently published.

What do people have to pay attention to? How much protein is too much?

Protein requirements are based on age, gender and lean body mass as well as the activity level. For inactive people, 0.8 g/kg body weight daily is plenty. For people who exercise moderately, 1 g/kg daily is ideal, endurance athletes need 1.2-1.4 g/kg and strength athletes are advised to consume up to 1.7 g/kg per day. This only applies to people with healthy kidney function. If kidney disease is present, a doctor should be consulted.

Soy as an antirheumatic

The soy in Almased® has antioxidant effects and works as a natural antirheumatic agent.

A basic diet recommendation for people with rheumatism is to reduce the consumption of foods rich in arachidonic acid. Arachidonic acid is a fatty acid that is mainly found in meat, meat products and eggs. However, this recommendation means taking important protein sources off the daily meal plan. This can be problematic for people with rheumatism as protein provides the amino acids that are necessary for the development and retention of muscles, bones and articular cartilage. Especially patients with inflammatory rheumatism (rheumatoid arthritis) can have an increased protein requirement since they metabolize more protein due to their disease. Additionally, the cortisone used in rheumatic therapy increases the breakdown of protein in the body.

Therefore, people with rheumatism can have a protein deficit for several reasons and this deficit needs to be balanced through the food intake. The soy protein in Almased® can do just that. Isoflavonoids in the soy have antioxidant effects. Rheumatic diseases cause an increased release of free radicals that maintain or even increase inflammatory processes in the joints. Combined with other micronutrients that have antioxidant effects, soy isoflavonoids can help to lessen oxidative stress¹.

Soy protein has also been shown to be effective in fighting pain, one of the main symptoms of rheumatic diseases. Animal testing has shown that a diet rich in soy can lessen chronic nerve pain².

1 Toda S et al. Inhibitory effects of isoflavones on lipid peroxidation by reactive oxygen species. *Phyt Res* 1999; 13 (2): 163-65.

2 Shir Y et al. The correlation between dietary soy phytoestrogens and neuropathic pain behavior in rats after partial denervation. *Anesthesia and analgesia* 2002; 94 (2): 421-26. Shir Y et al. Consumption of soy diet before nerve injury preempts the development of neuropathic pain in rats. *Anesthesiology* 2001; 95 (5): 1238-44. Shir Y et al. Soy containing diet suppresses chronic neuropathic sensory disorders in rats. *Anesthesia and analgesia* 2001; 92 (4): 1029-34.

Almased® fights metabolic syndrome

The Synergy Diet has positive effects on overweight, lipid metabolic disorders, high blood pressure and insulin resistance.

Metabolic syndrome is a combination of diseases that are jointly called the “deadly four”: overweight, lipid metabolic disorders, high blood pressure and insulin resistance. The nine scientists that researched Almased® in its early stages already agreed that the powder has positive effects on the markers of the metabolic syndrome (see page 7 - 9).

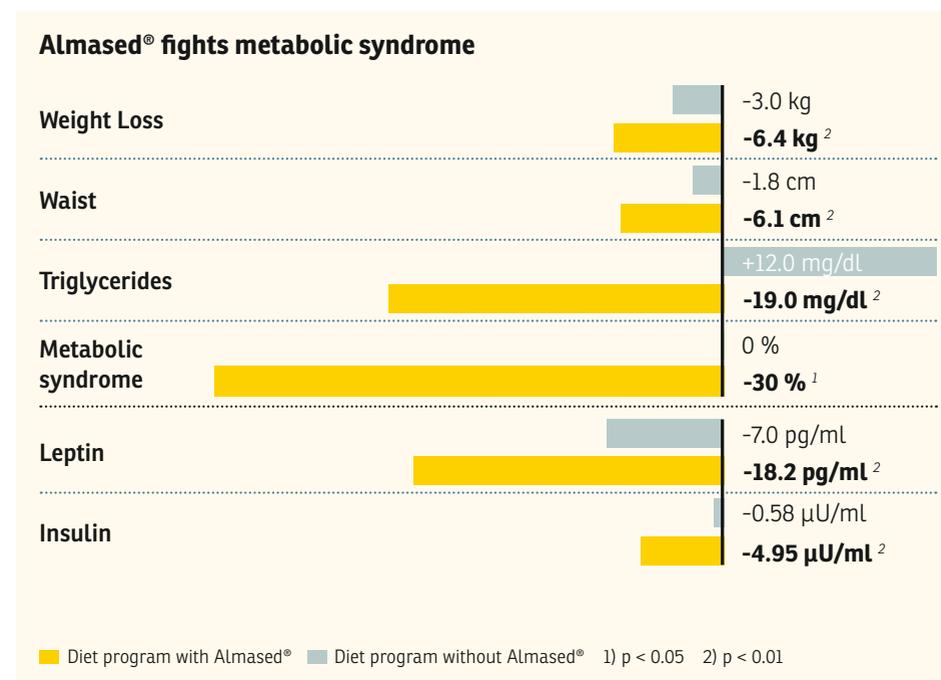
A lot of times, treating overweight and obesity is a causal therapy approach that also treats hypertension, lipid metabolic disorders or diabetes mellitus. Losing 10 kg (22 lbs) of weight reduces the systolic blood pressure by 12 mmHg and the diastolic blood pressure by 8 mmHg, lowers triglycerides by 30%, increases HDL-cholesterol by 8% and lowers the HbA1c value by 1.5 units. Weight loss also results in 2 out of 3 people with diabetes no longer suffering from the disease.

A 2008 study has shown: After only 6 weeks on the Almased® diet, over-

weight participants (60 took Almased®, a control group of 30 was on a weight loss program without Almased®) showed improved biomarkers – significantly more than in the comparative group that was on a regular low-fat diet¹.

Almased® can also help menopausal women, who are known to have an especially “sluggish” metabolism. This was shown in a study at the University of Freiburg, Germany, which compared the reaction of pre- and postmenopausal women to Almased®. The blood fat levels improved noticeably in both groups, the HDL-cholesterol level, which protects the arteries, increased while the harmful LDL-cholesterol level and triglycerides decreased.

Insulin and ghrelin levels were lowered significantly, more so in postmenopausal women than in younger ones. Therefore, the positive effects were not only seen on the important parameters of the metabolic syndrome



but also on the hunger and satiety messages that are controlled by the central nervous system. The Almased® diet was able to reduce the occurrence of the metabolic syndrome in premenopausal women from 23% to 18%.

In postmenopausal women, almost half showed having metabolic syndrome at the beginning of the study and that number was drastically lowered to 16%.

1 Koenig D et al. Effect of meal replacement on metabolic risk factors in overweight and obese subjects. Annals of Nutrition and Metabolism, 2008; 52:74–78.

2 Deibert P et al. Effect of a weight loss intervention on anthropometric measures and metabolic risk factors in pre- vs. postmenopausal women. Nutrition Journal, 2007 Oct.; 6(1): 31.

The soy in Almased® can lower blood pressure

Almased® studies confirm what international studies claim: The Almased® Synergy Diet lowers blood pressure levels.

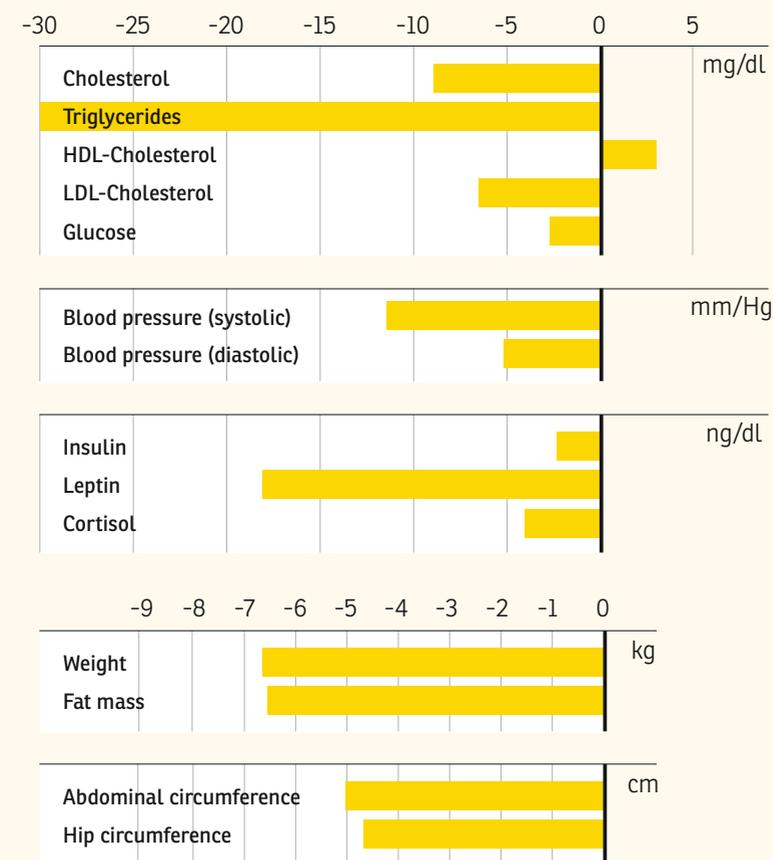
Many people suffer from high blood pressure which increases the demand for a plant ingredient that lowers blood pressure without harmful medicines.

In 2006, a team of researchers for the international cross-sectional study INTERMAP questioned 4,700 people with regular blood pressure (between 40 and 59 years of age, from Great Britain, USA, China and Japan) about their diet habits and investigated urine samples of the participants to find a relation between diet and high blood pressure. People whose daily intake of plant protein was just 2.8% higher than the average had a systolic blood pressure that was 2.7 mmHg lower than the average and a diastolic value that was 1.7 mmHg below the average. People who took over-proportional amounts of animal protein did not show this result¹.

The particularly successful effect of soy protein was shown by Dr. Jiang He at Tulane University in Louisiana. On a daily basis, he gave a group of adults cookies that consisted of 40 g soy protein, another group ate cookies that consisted mainly of 40 g high complex carbohydrates from wheat. People with hypertension that ate the soy cookies lowered their systolic blood pressure by 7.1 mmHg and their diastolic blood pressure by 4.7 mmHg on average. People with regular blood pressure lowered their values by 2.5 mmHg and 1.3 mmHg on average².

A study conducted by Almased® research also showed the healing effects of the powder on blood pressure. 50 women over 40 participated in a weight loss program with Almased® over 48 weeks. They not only lost an average of 15 lbs of fat mass, but also lowered their health risks. In addition to noticeably improved hormone levels, the blood pressure decreased significantly³.

Influence of a weight reduction program on health risks of postmenopausal women (n=50)



1 INTERMAP-Study, published in Arch Intern Med 166, 2006, 79.

2 Presented at the 12th World Congress of Heart Disease, Vancouver 2005.

3 Deibert P et al. Effect of a weight loss intervention on anthropometric measures and metabolic risk factors in pre- vs. postmenopausal women. Nutrition Journal, 2007 Oct.; 6(1): 31.

Almased® stimulates the youth hormone HGH

Study: The amino acids arginine and lysine in Almased® increase the release of the hormone HGH.

In a study with 25 overweight women, researchers of the Department of Sports Medicine at the University of Freiburg, Germany, proved that a diet with Almased® cannot only achieve weight loss, improve body composition and lower leptin and insulin levels but also increase the level of the growth hormone HGH. HGH helps the body break down fat and improve muscle growth. It is often used as an anti-aging method.

The researchers in Freiburg also tested Almased®'s effect on HGH in men as well. They had overweight, untrained older men conduct a strength training. One group combined the training with Almased®, a control group simply followed the general recommendations for a healthier lifestyle. The results prove that only the combination of strength training and Almased® positively influenced body composition and the metabolic functions and diminished age-related restrictions.

The "youth hormone" HGH is also used as an anti-aging method.



An increase in the HGH level was also noticeable in male individuals. Consuming the soy protein and honey supplement influences the effects of training and diet as well as hormonal regulation in several ways. The amino acids arginine and lysine in soy protein increase the release of the hormone HGH. Additionally, soy protein seems to positively influence the food intake by influencing the hormones that regulate the hunger and satiety messages in the central nervous system¹.

The influence of Almased® on the hormonal system in women between 35 and 65 years after 24 weeks



Strength training in men over 50 with and without Almased®

Time frame 12 weeks, n = 40



¹ Berg A et al. Presentation at the 11th International Obesity Conference in Stockholm, July 2010.

Almased® as a natural anabolic agent

Almased® for athletes: The Synergy Diet improves fat burning and muscle growth.

Athletes need more protein after their training than non-athletes for strength and regeneration: 1.2 to 1.8 g per kg of body weight daily, depending on the kind of sport. Professor Dr. Arno Schmidt-Trucksäß of the University of Munich, Germany, showed in a study that Almased® is especially suitable for athletes. His reasoning is that Almased® is a protein supplement with a balanced amino acid composition and a high amount of essential and branched-chain amino acids and therefore causes a targeted physiological reaction. 30 minutes after consuming 40 g of Almased® combined with 37.5 g glucose, the insulin kinetics showed a peak that was significantly higher than after consuming carbohydrates only. This caused an important stimulus for the build up of muscle protein. Additionally, the combination of 63% protein and 36% carbohydrates in Almased® supports quick regeneration after training. The researcher refers to the positive experiences with Almased® of professional soccer players in Germany (from Bay-

Strength training with Almased® achieves better results: More fat loss plus increased muscle growth.

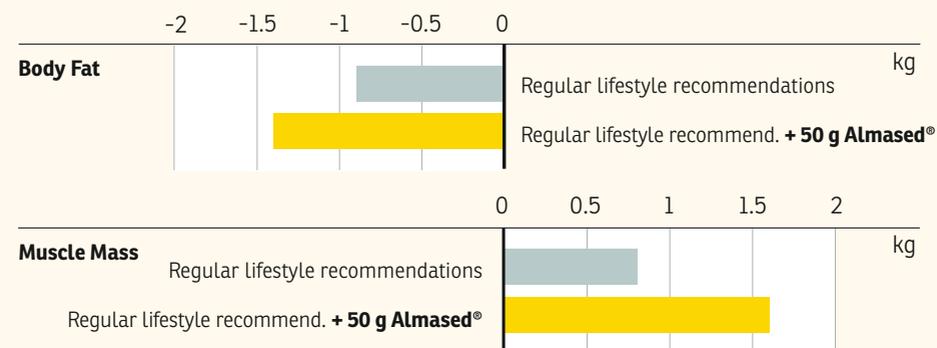


er Leverkusen as well as 1. FC Köln) as well as of the swimming team¹.

A study at the University of Freiburg, Germany, supports the claim that Almased® helps to improve muscle growth. In a comparative study the researchers had two groups of older men conduct a strength training for 12 weeks: One group received regular lifestyle recommendations, the other

Strength training in men over 50 with and without Almased®

Time frame 12 weeks, n=40



group was given the same recommendations as well as 50 g Almased® daily. The participants who did not take Almased® lost an average of 0.9 kg (2 lbs) of fat and gained 0.8 kg (1.8 lbs) of muscle mass. The participants who

took Almased® every day lost an average of 1.4 kg (3.1 lbs) of fat and gained 1.6 kg (3.5 lbs) of muscle mass – twice as much as the group that did not take Almased® and with the same amount of training².

1 Ivy JL et al. Early postexercise muscle glycogen recovery is enhanced with a carbohydrate-protein supplement. *J Appl Physiol* 2002; 93(4): 1337 – 44. Berg A et al. Favorable metabolic properties of a soy-honey-yoghurt product for meal replacement in overweight subjects with atherogenic risk; atherosclerosis supplements. Volume 9/1, May 2008, 253.
2 Deibert P et al. Poster Presentation at the ICO Congress, July 2010, Reference No T3.

Almased® ensures a stress-free everyday life

The Almased® Synergy Diet lowers cortisol levels and improves health-related quality of life in seven dimensions.

When people consume less food during a diet this often results in stress for the body. As a result, the body releases a higher amount of the stress hormone cortisol. Its concentration indicates the level of physical and psychological stress. During a diet with Almased®, the cortisol level decreases. The stress factor drops.

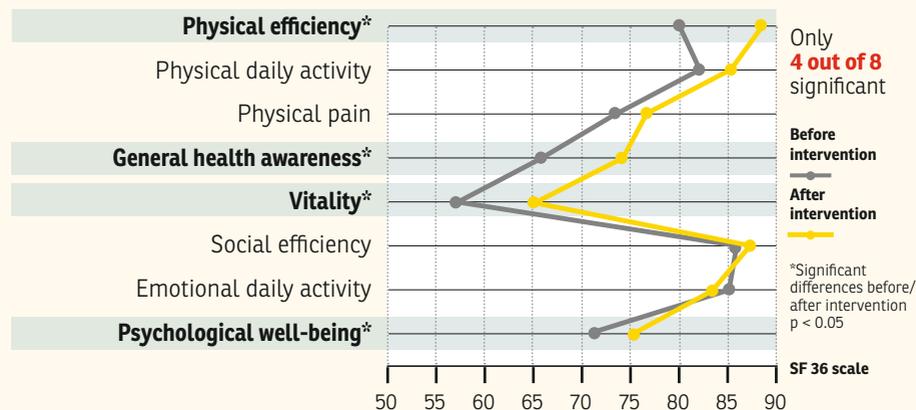
These are the findings of a recent scientific study with overweight women conducted by Prof. Dr. Aloys Berg at the University Clinic Freiburg, Germany. It is also a possible scientific reason why people who are on a diet with Almased® report that they are in an especially good mood and feel balanced¹.

Another study conducted with 381 obese women between the ages of 40 and 65 and with a BMI of 30 to 40 kg/m² as well as identical fitness levels showed that diets including Almased® result in a higher improvement of health-related quality of life than other diet programs, even if the weight loss results are the same.

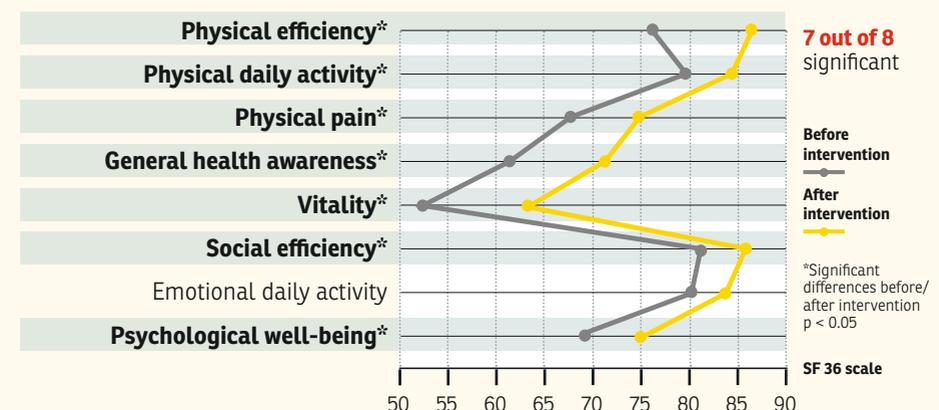
The data for the health-related quality of life was gathered with a standardized questionnaire (SF 36) before and after a one-year long intervention program for clinically controlled weight loss.

SF 36 is a measuring instrument that includes several diseases and evaluates

Quality of life of overweight women, Intervention without Almased®



Quality of life of overweight women, Intervention with Almased®



health-related quality of life. SF 36 includes 8 dimensions, that can be categorized in “physical health” and “mental health”:

- Physical efficiency
- Physical daily activity
- Physical pain
- General health awareness
- Vitality
- Social efficiency
- Emotional daily activity
- Psychological well-being

The following conclusion can be drawn from the results at hand²:

- The Almased[®] group reported significant improvements in 7 of the 8 dimensions after one year, the group who did not take Almased[®] only reported improvement in 4. Even though the Almased[®] group started out with noticeably worse values than the other group, they made up this leeway after one year and were on the same level as the other group regarding the assessment of their quality of life.

- Obese women with formerly limited health conditions were able to normalize their health-related quality of life by using Almased[®] as a meal replacement.



Tests with women show that the Almased[®] diet improved health-related quality of life more than other diets.

Protection of osteoporosis

Scientists refute the claim that protein from food has a negative influence on bone health.

Osteoporosis is characterized by continuous loss of bone substance and impairment of the specific structure of bone mass. The elderly, especially women in menopause, have the highest risk of osteoporosis.

The influence of food protein on bone health is often judged negatively. The reason is that a high protein intake increases the renal excretion of calcium, the most important mineral for bone composition. Independent scientific studies have refuted this claim and shown the contrary: Soy protein, a main component in Almased[®], can have especially positive effects - recent scientific studies have shown that consuming 2.1 g/kg body weight in comparison to 0.7 g/kg can result in increased intestinal absorption of

calcium, while the renal excretion of calcium does not increase significantly. There are many factors that suggest that soy protein is especially suitable to protect against osteoporosis. Soy protein, unlike animal protein, decreases the excretion of calcium from the body. Additionally, the isoflavonoids in soy protein are said to have properties that help maintain bone mass. Animal studies have shown that soy consumption can prolong acute estrogen deficiency related loss of bone mass.

Several intervention studies in pre- and postmenopausal women have also shown that consuming soy protein can reduce the concentration of bone resorption parameters in the urine (e.g. deoxypyridinoline) and can have partially positive effects on bone density.

¹ Berg A et al. Influence of Almased on the health-related quality of life of overweight women. Presentation at the 18th EAS Congress, Istanbul 2011.

² Berg A et al. Medical University Freiburg, subm. 2010 N=190 / 191 of 1625.

Setehell K D et al. Dietary phytoestrogens and their effect on bone: evidence from in vitro and in vivo, human observational, and dietary intervention studies. Am J Clin Nutr 2003; 78 (3): 593-609.

Soy isolate, gout and inflammation

Almased® is low in purine and a great source of protein for people who suffer from gout. Additionally, it has anti-inflammatory effects.

Gout is a typical disease of affluence and is related to too much calorie intake, overweight and alcohol consumption. Scientific findings suggest that Almased® is extremely well suited as a protein source for people with gout.

Gout is the result of an increased uric acid level. Uric acid is produced by the breakdown of purine in the body, endogenous and exogenous. Food with high protein content, especially animal protein, contains a lot of purine. But certain carbohydrates also increase the risk of developing gout. People who

have gout or are at risk for developing gout should consume little fruit and not more than 30 g of fruit sugar per day. And since keto acids, which are produced by the breakdown of fat during a diet, inhibit the excretion of uric acid through the urine, people at risk for gout should always ensure an alkaline counterbalance, for instance by drinking lots of water rich in hydrogen carbonate and minerals.

Not all purines act in the same harmful manner: Soy is a purine-rich food. Nevertheless, studies show an increased uric acid clearance for soy as well as for milk¹.

Studies that researched the effects of the soy product tofu on the uric acid metabolism show that it is an exceptional protein source for gout patients².

The soy protein in Almased® has been enriched with valuable soy isolate which makes it especially suitable for a diet low in purines. To ensure a sufficient supply with protein while simul-

taneously reducing calorie intake, Almased® is an ideal choice.

Additionally, Almased® has a great “side effect”: A study with overweight patients has shown that a diet including Almased® not only has a positive influence on the metabolism but also on the regulation of inflammation³.



Soy is a great protein source for people suffering from gout, especially the valuable soy isolate that is in Almased®.

¹ Garrel D R et al. Milk- and soy-protein ingestion: acute effect on serum uric acid concentration. *Am J Clin Nutr* 1991; 53 (3): 665-69.

² Yarnakita J et al. Effect of Tofu (bean curd) ingestion and on uric acid metabolism in healthy and gouty subjects. *Adv Exp Med Biol* 1998; 431: 839-42.

³ Walther W et al. Influence of a defined reduction diet on body composition, metabolism and inflammation regulation. *German Journal of Sports Medicine* 51, Nr. 1 (2000), S. 39.

This is how it works: Weight loss according to plan

The four phases of the Almased® diet – applied to a two-week program. All phases can be extended.

1. Starting Phase - Day 1-3
The metabolism is reset to increase the fat burning process.



Three Almased® shakes per day, each prepared with water, skim milk or soya milk are ideal. During this phase you should have as few carbohydrates as possible. Bread, rice, pasta, potatoes, sugary drinks (soda, fruit juice, beer) and sweets are off-limits. Since the body detoxifies heavily during this

phase, it is important to drink plenty of fluids (eight to twelve cups per day). This flushes out acidic by-products that are released while the body breaks down fat. Water (ideally mineral-rich), unsweetened tea or one to two cups of coffee are recommended. It is ideal to begin the Starting Phase on a weekend.

2. Reduction Phase - Day 4-7
Now you burn the fat. Two Almased® shakes as well as one regular meal per day are ideal.



The recipes for regular meals are low in carbohydrates so that the fat burning process can work at its best. If having your regular meal for dinner instead of lunch fits your lifestyle better, you can exchange them. Since a low intake of carbohydrates is espe-

cially important in the evening, avoiding high-carb side dishes (bread, potatoes, rice, pasta) can speed up the weight loss process. This applies to the evening meals in all phases. Please avoid snacking. This will further increase the fat burning process.

3. Stability Phase - Day 8-10
Now we ensure that the metabolism continues to function ideally.



This phase is meant to stabilize the metabolism on a level where fat is actively burned. In this phase, you should have one Almased® shake and eat two regular meals. You can exchange the Almased® shake for any meal. For example, choose one of the breakfast

suggestions from the Life Phase and have your Almased® shake either for lunch or dinner. For best results, drink Almased® in the evening.

4. Life Phase
Three regular meals and one Almased® shake daily – this is how life is good.



During the Life Phase, you can have three regular meals per day. Avoid eating snacks. To keep the metabolism active, 50 g of Almased® (= one serving) should be taken daily in addition. You can have Almased® with breakfast, consume it as a drink or add it to your cold cereal. If you want to

continue losing weight, you should eat fewer sides for dinner or avoid them altogether. If you want to extend the Reduction Phase or the Stability Phase, you may do so.

Learn more about Almased®

Find more information in our FREE brochures, by contacting us or visiting our website.

Figure Plan

The 14-day program to lose weight with Almased® is available for FREE at your pharmacy or health food store or for download at www.almased.co.uk

Almased® Wellness Tea

The Almased® Wellness Tea is the perfect complement to the Almased® Synergy Diet. The tea is a blend of select all-natural herbs, including whitethorn, elder blossom, marjoram, woodruff and celery. The tea is naturally caffeine-free and promotes restfulness and sleep.

Customer service

Call Almased UK at 020 7969 1886 or visit our website at www.almased.co.uk for more information.

