

Lactium®: your natural partner for slimming and body weight control

Slimming is a huge trendy market and numerous innovations are regularly launched in this field. In addition, nutritionists predict that a great majority of people suffer or will suffer from overweight troubles along their life. Therefore, the need for low-fat, low-sugar and low-calorie foods is still very large.

On the other hand, consumers are now looking for efficient solutions to their overweight problems, as most of them have been disappointed by inefficient products.

Lactium® is your natural and efficient answer

Used either in dietetic products such as dietary supplements or meal substitutes, or in functional foods such as beverage or dairies, Lactium® is a valuable solution to overweight problems due to stress.

*With **Lactium®**, we offer you an original positioning on the competitive slimming market.*

Used alone as in the “Zen&Slim” concept:

“For a diet without snacking or bad mood”
www.lactium.com

Or in association with slimming actives, for example an active limiting carbohydrates absorption as in the “Banana Breeze” concept:

“Lighten up with this delicious new drink that may assist in weight control and improve your mood”
www.lactium.com

Lactium® will be your ideal partner for slimming by acting in 2 ways:

- *By limiting snacking due to stress, in particular for sweet foods.*
- *And by helping resist during the diet stressful period, not to break up and to avoid yoyo effect.*

Scientific results are explained in this brochure.

For further information, please do not hesitate to contact us:



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Scientific knowledge: Stress and weight gain

Stress: disorder or pathology?

According to biologists, stress is a psychological answer to a constraint, a pressure of the subject's environment. Stress can be sized up psychologically. It is not a pathology but a natural answer of the body to an external stimulus.

According to consumers, stress is constraints, pressures, tensions of which they sometimes feel the effects, and that influence their morale, mood, sleep quality, appetite, concentration...

The scientific community now recognizes the link between stress and weight gain. Stress is one of the major factors for overweight, after eating habits - often in the form of snacking and most of the time concerning sweet foods.

Bibliographical study

More than 30 articles have been emphasizing the positive link between stress and weight increase for 10 years. (Bibliographical references are available on request).

Under stressful conditions, the food behavior of both men and women is directly affected. Subjects seem to be tempted by snacking and to be more liable to choose sweet and fat products. In this way, more than 71% of the subjects studied by Zellner *et al.* (2006¹) increased their eating habits under stress. Stress can thus be deemed a significant factor for overweight.

Moreover, studies showed that subjects that are on a restrictive diet eat more when they are under stress. According to Paul Lattimore², a specialist of food behavior at Liverpool John Moore University, the reason for this phenomenon is that "subjects on a diet devote a considerable energy to control their biological trends, so that they have limited resources to face up to daily stress". Thus, when people that are on a restrictive diet are under stress, they lose control and eat. In addition, these people are so much used to fighting against their biological signs that they are unable to perceive satiety. As a result, from the moment they break up, they even eat beyond their physiological needs.

What is the solution?

According to these scientific data, a possible solution to fight against overweight troubles is to act on the moderation of stress that surrounds us in everyday life.

Indeed, stress management can be an ideal slimming solution thanks to a two-level action:

- It limits snacking due to stress, which is responsible for weight gain.
- It brings a valuable support that allows you to fully dedicate to your diet.

Choosing to manage your stress will help you experience a relaxed diet!

¹ Zellner DA, Loaiza S, Gonzalez Z, Pita J, Morales J, Pecora D, Wolf A. *Physiol Behav.* 2006 Apr

² Lattimore, *SFN Cahiers de la nutrition et diététique* volume 40 dic. 2005

Lactium®: An efficient help to reduce stress symptoms

Lactium® is a natural milk protein hydrolysate that has proven through diverse pre-clinical and clinical studies its efficacy to regulate stress symptoms without side-effects. This efficacy has been acknowledged by the Authorities - notably the AFSSA - by the granting of a health claim authorization: "... can moderate the tensional response to stress, in particular for hypersensitive persons".

Proof of Lactium®'s relevance in a slimming product: pre-clinical and clinical studies

- [PROCLAIM clinical study \(2003\)](#)

(2-month clinical study on 63 volunteers using a randomized, double-blind, placebo-controlled procedure with cross-over and wash-out).

Declaration of stress symptoms improvement with focus on weight symptoms.

On the items relating to weight, we showed that Lactium® significantly improves the feeling of subjects compared to placebo.

- [Influence of stress on food intake \(2006\)](#)

After a 2-day fast period, which generates stress, rats significantly increase their food intake (grey curve). On the opposite, stressed rats that have been given Lactium® (red curve) show a food intake similar to the reference group (blue curve).

▶ Lactium® significantly regulates the food intake during a fast period, synonymous with stress.

- [Influence of stress on sweet nibbling \(2007\)](#)

During a moderate stress period, the food behavior of rats unbalances as they prioritize sweet products at the expense of standard food. On the contrary, stressed rats that have been given Lactium® balance their food intake in the same way as unstressed rats (reference group).

Consequently, the percentage of fat body mass strongly increases among stressed rats, whereas it remains stable and similar to the reference group among stressed rats that have been given Lactium®.

▶ Lactium® thus regulates the food intake and limits sweet nibbling (snacking) during stressful periods.

The consumption of Lactium® helps better manage stress and contributes to **limit snacking, notably for sweet foods**. It allows to limit food consumption during a diet period **by reducing the frustration feeling**. Therefore, Lactium® can contribute efficiently to body weight control by bringing support during the diet period.