The effect of nucleotide supplementation on the immune response and metabolism towards short and intense exercise. McNaughton, L / Journal of Sports Medicine and Physical Fitness (2005)

The effect of nucleotide supplementation on the level of IgA and salivary cortisol after physical exercise of medium load.

Accumulation of chemical substances under stress

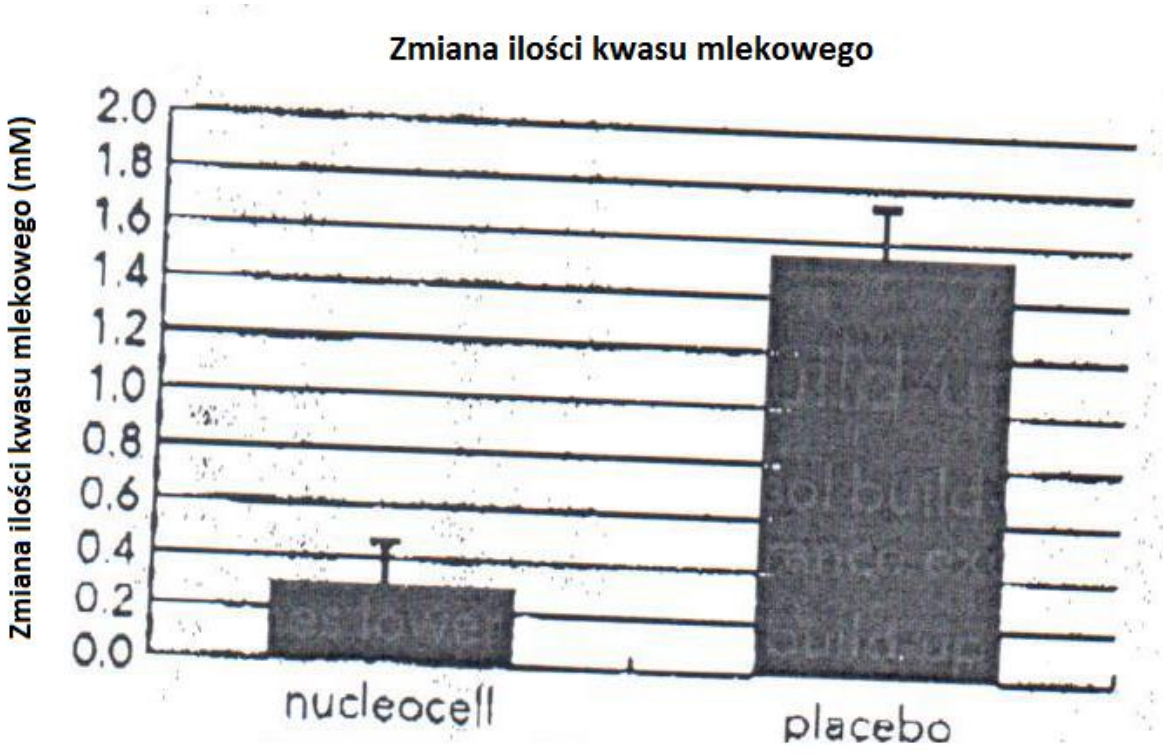
Increased levels of lactic acid in the blood of athletes

The increase in the level of lactic acid after 90 minutes of endurance training was 7-fold lower in the group receiving Nucell®IM.

The general conclusion might be that athletes would be able to train longer and harder.

Increased level of cortisol after 90 minutes of endurance training:

The increase in cortisol levels was 10% lower among athletes using Nucell®IM. Cortisol is a hormone released in large quantities during activities that cause various types of tension. It is attached to the cells of the immune system responsible for fighting the disease. The immune system has a much more difficult task when it is loaded with high levels of cortisol.



Clinical tests

Impact Nucell®IM on immunity - Cold and flu symptoms Summary and publication accepted:

- Office of Complementary and Alternative Medicine (CAM) and National Health Service (NHS), Scotland - 20/9/02

- Clinical trial, Queen Margaret University, Edinburgh, EH12 8TS, Scotland

- Dr Isobel Davidson, Faculty of Nutrition, Nutrition and Biological Sciences

Purpose of research:

Determining whether supplementation with a specific formula containing nucleotides (Nucell®IM) can relieve specific symptoms, secondary infections and the time of regeneration of the body after spontaneous and natural infection with a group virus or a cold.

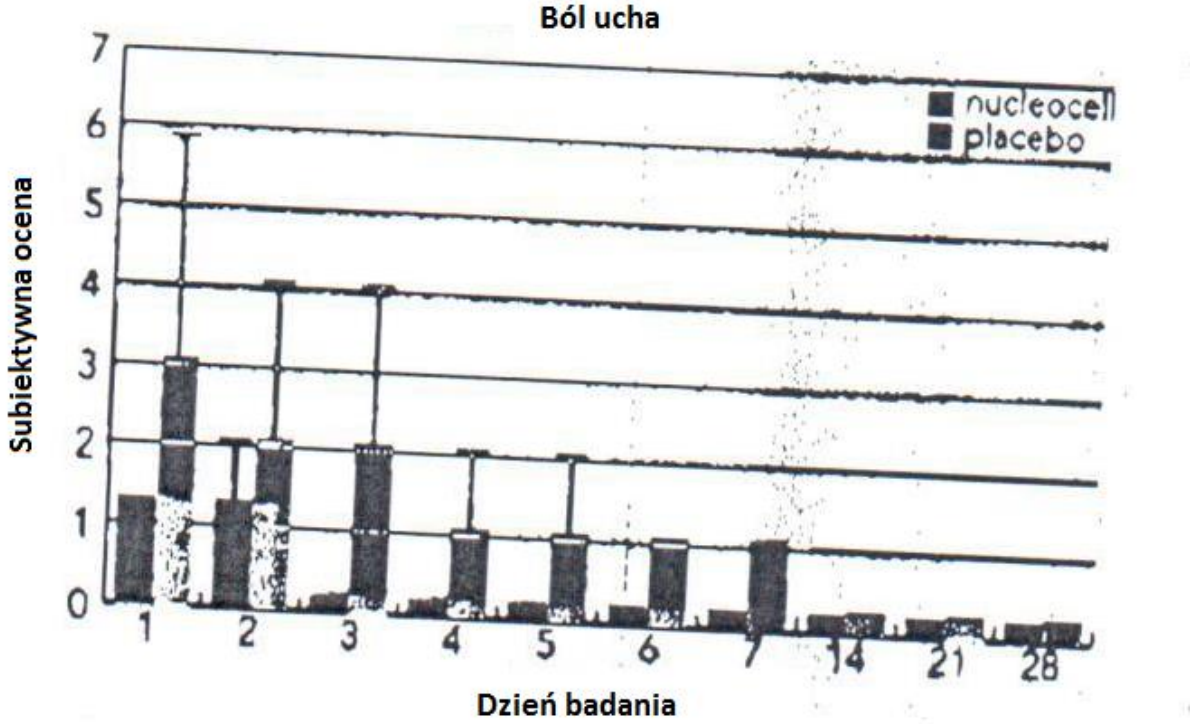
Hypothesis:

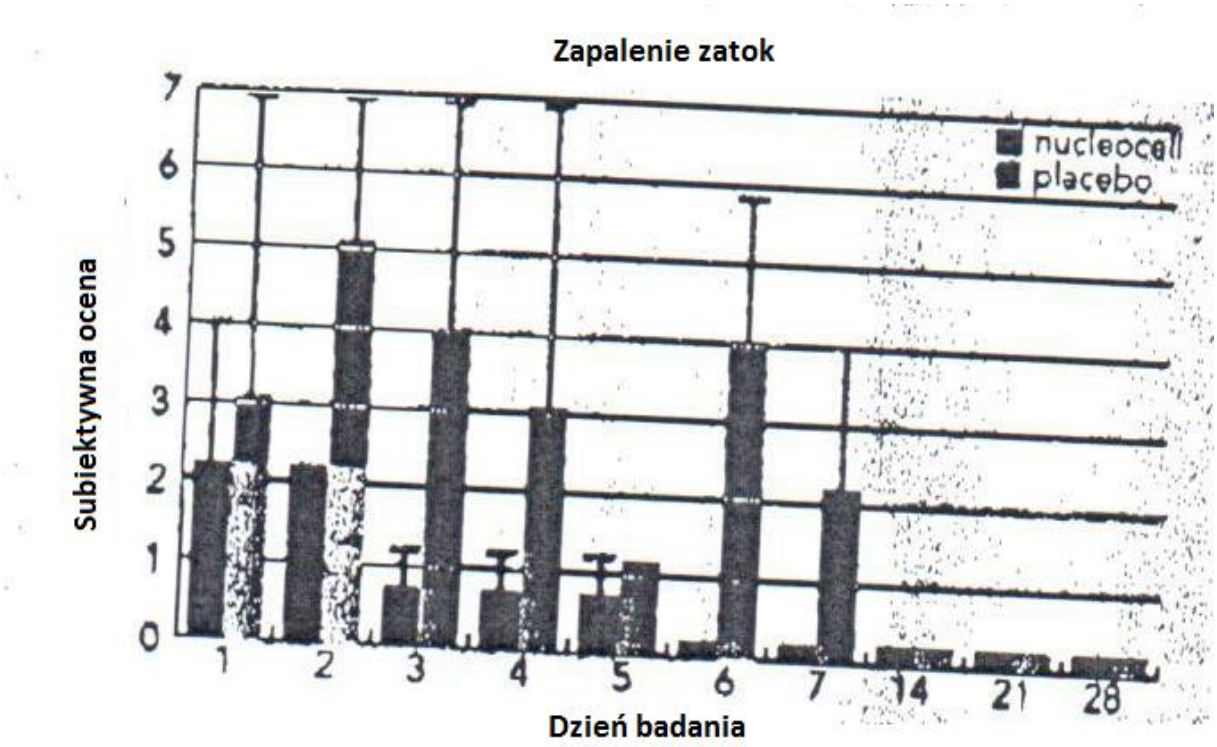
Compared with placebo, supplementation with nucleotides significantly reduces the length and severity of some of the symptoms of the group or cold.

CONCLUSIONS:

Based on the data collected and the analysis made during / after the completion of the double-blind test, the following conclusions can be drawn:

The product containing nucleotides (Nucell®IM) significantly alleviated the following symptoms caused by a cold, influenza infection or secondary infection:



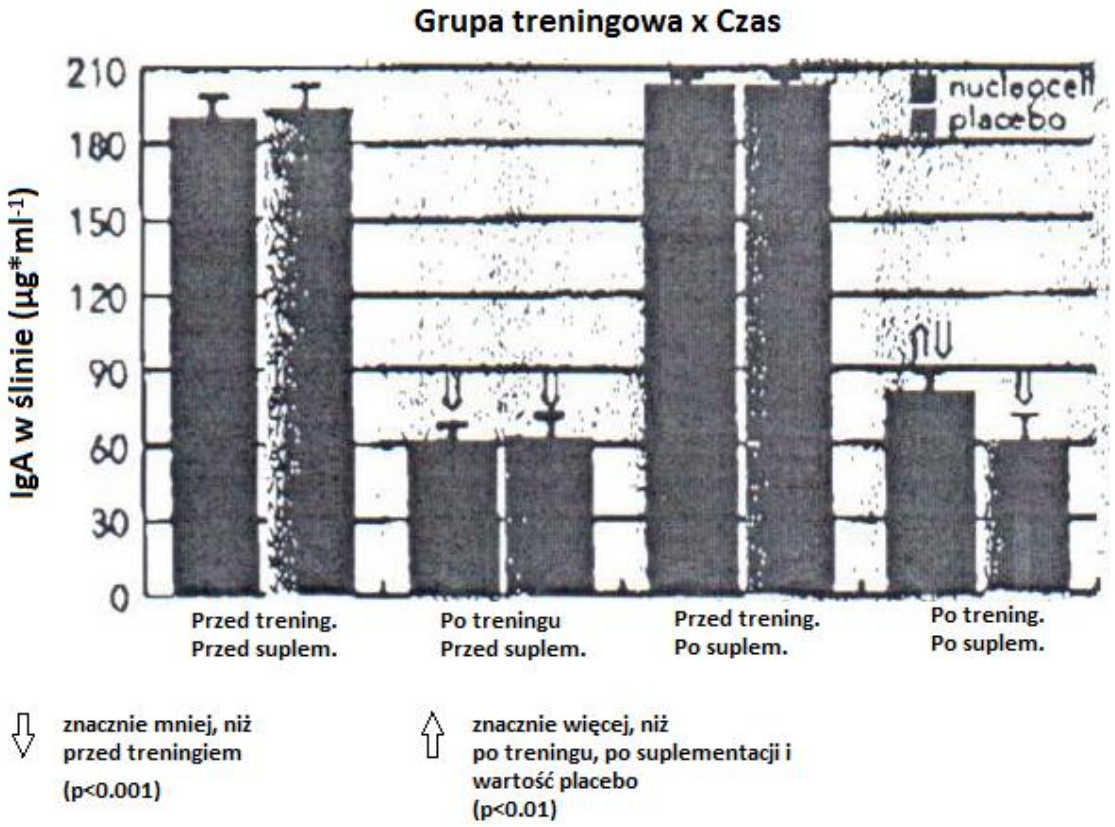


Weakening of the immune system:

Antibody titre (IgA) 90 minutes after endurance training:

After training, the levels of antibodies in athletes using Nucell®IM supplementation were 25% higher than in the placebo group.

It is suspected that high decreases in IgA levels are responsible for the infection of the upper respiratory tract in athletes and people suffering from excess stress.



Conclusions:

Nucell®IM reduces the secretion of stress-related hormones and also maintains higher levels of antibodies that allow the immune system to work more efficiently.

Keeping IgA levels can have a positive effect on the immune system, especially if the athlete completes a demanding training plan. Mild overtraining can have a significant impact on an athlete's health, which becomes susceptible to infections such as colds or flu. Maintaining the immune system in good condition is key for athletes. In general, a sick athlete can not train after all.

Understand...

Nucleotides are the building blocks of DNA and RNA chains. They also participate, alone or together with other molecules, in almost every cell activity, including in catalysis, energy transfer and hormonal signals.

The growing body is in constant demand for the production of new cells, and in the case of adults it must be produced so quickly to satisfy the rate of death of the old ones. To do this, a typical cell has to double its mass and copy all its contents to create two new, twin cells. The multiplication of cells begins with a phase of information duplication, i.e. DNA chains.

The DNA chain usually consists of 3 billion nucleotides. The right stage begins only after duplication of the DNA chain, when the cell begins to divide into two separate cells. Providing an external source of nucleotides accelerates the multiplication of some cells.

- Both development and proper care for our biological systems require the proliferation of various cells.

- It's a long and complicated process, depending on the amount of energy and the availability of a specific building material, especially nucleotides.

- Nucleic acids increase immunity and accelerate tissue regeneration.

- Nucleotides also participate directly in protein synthesis and tissue regeneration.