



# Magnesium enriched milk

For optimal calcium - magnesium balance















## Milk supplies a lot of calcium but only little magnesium

Milk is a supplier of calcium, which is especially important for the growth of children and the mineralization of their bones. But milk by itself supplies a little amount of magnesium. The calcium magnesium ratio in milk is 10:1, while the recommended daily allowance is 2:1. Therefore, milk supplies much more calcium than magnesium.

The calcium intake strongly increased in the last 100 years while the magnesium intake decreased to less than 50% at the same time.

Excessive intake of calcium increases the risk of corona heart disease, high blood pressure and artery calcification. Epidemiological studies show that countries like Japan, in which people consume almost a 1:1 ratio of calcium and magnesium, have the lowest rate of cardiovaskular diseases of all countries. Therefore, it is recommended to consume less calcium and more magnesium.

#### Magnesium fortification of milk

It is not possible to add soluble magnesium salts to fortify milk or diary alternatives as these salts release magnesium ions that have a soapy taste. These also cause diarrhea and lead to protein agglomeration. Taiyo produces endosomal magnesium called SunActive® Mg that does not release magnesium ions and therefore is the only suitable magnesium for magnesium fortification of milk.

#### Advantages of endosomal magnesium for the fortification of milk

- 100% dispersion in milk and dairy alternatives
- No taste
- Does not cause diarrhea
- Does not cause coagulation of milk protein
- No sedimentation of insoluble Mg-Phosphate (due to very small particle size of 0,3-0,4µm)

 Mg-Concentration: Mg 60mg/100ml cow milk / Heating: 63°C for 30min

 Image: SunActive Mg

 Magnesium

 Phosphate

 Magnesium

 Chloride

### Endosomal magnesium. The milk magnesium

SunActive<sup>®</sup> Mg can be added to milk to improve the mineral balance. It is naturally 10:1 (Ca:Mg), instead of the optimal ratio of 2:1. Adding SunActive<sup>®</sup> Mg to milk creates a healthier mineral profile, because magnesium is a natural calcium antagonist. A magnesium fortified milk can equalize the negative impact of the milk calcium like stress, pain transmission, insomnia, high blood pressure and cardiovas-cular diseases.



