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Statement: *Is a concentration of 10^9 cfu/g bacteria enough for a healthy effect on gut?*

The bacterial flora is a community comprising about 10^{14} bacteria (one hundred trillion bacteria), representing between 10.000 and 100.000 times the number of probiotics normally recommended as a supplement. Therefore, how can it be effective an amount of 10^9 cfu/g of bacteria?

The answer to this question is: as long as the correct bacteria are in the right place at the best possible conditions.

The effects of bacteria supplied as probiotics occur primarily in the small intestine. In the initial section the concentration is relatively low, from 100 to 10.000 (10^4) cfu/g.

In the last part of the small intestine, the bacterial concentration increases from 10.000.000 (10^7) to 1.000.000.000 (10^9) cfu/g. Here probiotics have an important influence on the immune system, so a concentration of 1 billion probiotics (10^9 cfu/g) is more than enough.

Finally, in the colon where the number of endogenous bacteria reaches 1 trillion per gram, 1.000.000.000.000 (10^{12} cfu/g). There, probiotics stimulate the growth and development of favourable conditions for the resident bacterial flora.

In conclusion, along the whole intestine, probiotic supplementation it is capable of inhibiting pathogenic bacteria in spaces where resident bacteria are absent. The basic fact for this pass is not the number of bacteria is provided but the conditions in which they arrive, in other words, if they are able to withstand the acidic conditions of the stomach.

Beside the right combination of bacteria it is important that they are in the presence of nutritional ingredients that activate and convert them into viable living bacteria that protect them from the acidic conditions of the stomach and increase their activity in the intestine. This is what we have sympathetically defined as "backpacking bacteria", which means the presence of added minerals and other substances with prebiotic effect.

Megaflora 9 studies confirm that this probiotic and prebiotic combination meets the optimal requirements to act as the right bacteria in the right place at the best possible conditions:

- Survival in the intestinal tract.
- Stability of bacteria.
- Metabolic activity.

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