Amino acids lower infection rate in the elderly

Hospitalized patients often have a high rate of infections, but supplementation of essential amino acids can lower that rate substantially.

**Effects of oral amino acid supplementation on long-term-care-acquired infections in elderly patients.** The abstract of this paper states:

The very high general infection rate (IRI) observed in our Geriatric Intensive Rehabilitation Center led us to investigate whether patient supplementation with essential amino acids (EAA), modulators of immuno-competence, could reduce IRI. Eighty elderly patients admitted to our GIRC (n=40; age 79.5 ± 7.71; male/female 14/26) or placebo (n=40; age 82.13 ± 6.15; male/female 13/27) were allocated to an **8 g/day oral EAA** group and were surveyed for infections (>48 h from admission) over the first month of their hospital stay. The IRI was 67% for the entire population of patients, 82.5% in the placebo group and 52% in the EAA group.
When patients were divided into infection group (IG) and without-infection group (WIG), independently of post randomization allocation, the WIG had higher levels of serum albumin, blood hemoglobin (Hb) concentration, dietary protein calorie intakes but lower serum C-reactive protein (CRP). The factor of CRP>0.8 mg/dl and Hb ≤ 12 in females, ≤13 in males was associated 4 times and 3.6 times risk of infection, respectively, by sex. **EAAs supplementation may lower the risk of infection by 30% in the rehabilitative elderly population.** CRP and blood hemoglobin levels can be considered risk markers of future infection.

So, if you were an elderly person stuck in intensive rehabilitation, you would have over an 80% chance of acquiring an infection, but only 50% if you got a mere 8 grams a day of essential amino acids.

Essential amino acids are **very important for proper immune function.**

Essential amino acids are the constituents of protein that cannot be made inside the human body and must be ingested in the diet. The type of protein that has the highest concentration of essential amino acids (EAA) is **whey**, which is about 50% EAA. Therefore, a smallish, 20 gram whey shake would give you, or your elderly loved one in the hospital, 10 grams of EAA, which is 25% more than the amount that lowered the infection rate in this hospital. Given the low quality of hospital food as well as the fact that hospitalized patients often don’t eat enough, I would bet that giving more than 8 grams a day EAA would lower the infection rate even more.

**Whey protein has lots of other benefits for the elderly, like increasing lean body mass.** Most of the elderly would likely benefit by taking whey protein daily.