



---

### **Building Bones for Kids**

We have over 200 bones in our bodies. We need our bones for everything – they support us in all our functions, literally and figuratively. Not only do they help us stand, walk, run, but bones also provide the framework for our body, which protects our brain, heart, lungs, spinal cord and other soft organs. Finally, bones help balance the pH of the blood by moving minerals into the blood and alkalizing compounds attached to the minerals. We need to keep a balanced blood pH for our heart to function. So, it is crucial to have healthy bones.

65% of our bone is made up of calcium, phosphate and salt and the remaining 35% is made up of a collagen matrix, which is protein. It is this collagen matrix that makes bones flexible. Calcium is what makes bones strong. Growing and active children need bones that are flexible as much as they need bones that are strong. So, getting good sources of protein is as important as getting good sources of calcium and other minerals.

In order to maintain bone health, we need to eat a more alkaline diet because, if we eat a diet that is too acidic, our blood will draw calcium from our bones to balance the blood pH, thereby weakening the bones. The typical Western diet with white flour, sugar, dairy and lots of meat is very acidic.

For healthy bones, we need:

1. Good sources of protein, from grass-fed meats, free-range poultry, seafood, and legumes. Stock and edible bones are really good sources of collagen.
2. Good sources of fat, such as butter, ghee, olive oil, unrefined sesame oil, coconut oil.
3. Good sources of calcium, such as leafy green vegetables (cooked), broccoli, turnips, parsnips, nuts and seeds, seaweeds\*.
4. Good sources of vitamin D. Vitamin D helps maintain bone growth and health. It promotes bone mineralization by helping synthesize the enzymes in the mucous membranes that are involved in the transport of calcium throughout the body and therefore helps retain calcium. Vitamin D is found in the sun, cod liver oil, shiitake mushrooms, parsley.
5. Good sources of vitamin K, which helps deposit protein in the bones – vitamin K is found in dark leafy greens, cabbage, romaine lettuce, broccoli, green tea and natto (fermented soy beans), green peas, asparagus, whole wheat and oats.
6. Magnesium helps put calcium in the bones and is required for proper functioning of muscles (including the heart) – good sources are whole grains, beans, seeds, nuts, and green vegetables.
7. Exercise

\*While milk and dairy products are considered good sources of calcium, they are often processed using methods that make their nutrients less bioavailable.

Check Out: [Milk and Dairy Fact Sheet](#), [Food and Healing](#) by Annemarie Colbin and [The Whole Food Guide to Strong Bones](#) by Annemarie Colbin