***Skeletal Nutrition Assignment***

Every human in the world requires essential nutrients to keep their bones healthy, but knowing which ones isn’t always easy. Here is a short run-through of what humans typically need to keep their bones healthy and strong.

To kick things off let’s talk about calcium.According to [The American Academy Of Orthopedic Surgeons](http://orthoinfo.aaos.org/topic.cfm?topic=A00317) “Calcium is a mineral that people need to build and maintain strong bones and teeth.” Calcium also helps in other functions that are critical to your body’s well being, like muscle control and blood circulation. Luckily, getting calcium into your body is fairly easy. All of a person’s recommended calcium intake can be gotten through healthy foods such as breads, pastas, grains, sardine, salmon, and other soft-bone fish, kale, bok choy (or Chinese cabbage), other green leafy vegetables, tofu, and calcium fortified cereals, juices and other beverages. With this wide variety of foods there’s a way everyone can achieve their recommended calcium intake, and even if someone doesn’t like all these delicious food they can take calcium supplements which come in a pill form. As everyone may not know exactly what their recommended calcium intake is, I’ve included this chart from [the](http://orthoinfo.aaos.org/topic.cfm?topic=A00317) [AAOS](http://www.google.com/url?q=http%3A%2F%2Forthoinfo.aaos.org%2Ftopic.cfm%3Ftopic%3DA00317&sa=D&sntz=1&usg=AFQjCNGVFGKAnMG3JXA_N2GwPVAE0pLKWA) [website](http://orthoinfo.aaos.org/topic.cfm?topic=A00317). This chart shows a person’s recommended daily allowance in milligrams of calcium.

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| Life Stage Group | Recommended Daily Calcium Intake |
| Women and men 9 to 18 years | 1,300 mg |
| Women and men 19 to 50 years | 1,000 mg |
| Women 51 to 70 years | 1,200 mg |
| Men 51 to 70 years | 1,000 mg |
| Woman and men >70 years | 1,200 mg |
| Pregnant or nursing women 14 to 18 years | 1,300 mg |
| Pregnant or nursing women 19 to 50 years | 1,000 mg |

The second most important thing for bones is Vitamin D. Vitamin D is what allows our bodies to absorb calcium, and without it adults can develop a disease called osteomalacia, which causes bone pain and deformities of long bones. Now, a common misconception is that humans take in all the Vitamin D they need through sunlight, and the foods they eat, but that is simply not true. Most humans require supplements to reach their daily 600-4,000 IU allowance of Vitamin D. Although Vitamin D is wonderful for bone health, and helps physical functions in your body, it should be consumed safely, any dosage over 10,000 IU has been found to cause serious kidney damage and dangerously high serum calcium levels.

Another very important vitamin for bone health is Vitamin A, which causes cells to differentiate normally and helps the skeleton to grow normally. This fantastic little mineral can be found in liver, eggs, butter, green leafy vegetables and carrots. A different safe way to get your recommended Vitamin A intake is through plant based supplements such as B carotene.

Phosphorus and Magnesium are also very important when it comes to bone health. Magnesium, which is primarily found in bone crystals, improves bone strength. The older a person gets the more likely they are to be magnesium deficient and have frail bones. To combat this, calcium supplements with magnesium added in are generally recommended. On a different note, Phosphorus, which is a major part of the body’s bone crystals, helps your kidneys and intestines absorb Vitamin D to keep your bones strong. Recommended Phosphorus intake can be achieved through dairy products, and meat.

In conclusion, there are many ways that a person can keep their bones healthy and strong well into their later years, and most of these ways are quite tasty as well, but the key to healthy bones is to take in proper amounts of Calcium, Vitamin D, Phosphorus, Magnesium and a few other essential vitamins.