Vitamin D "The Sunlight Vitamin"

Vitamin D or Cholecalciferol is a fat soluble vitamin found in oysters, salmon, clams, crab, shrimp, lobster, egg yolks, organ meats, fish-liver oils, lard and butter. Its involvement in the body is more like a hormone than a vitamin because vitamin D is also produced when ultra violet B (UV-B) radiation is in contact with the cholesterol in our skin. This hormone is processed in the liver and then readily used in many of the body's processes. The amount of vitamin D that is created in the skin is much greater than we could ever eat in one day's time. Vitamin D is primarily responsible for developing bones, teeth and the nervous system. Vitamin D also helps in the absorption of calcium, magnesium, zinc and phosphorus through the intestines. Children who are low in vitamin D can develop rickets or soft bones. Adults who are low in vitamin D can develop soft bones (osteomalacia), weak bones (osteoporosis) and other bone abnormalities (osteodystrophy). The recommended amount of daily vitamin D intake is currently being reviewed.

Some studies suggest that low levels of vitamin D may result in breast cancer, prostate cancer, colorectal cancer, Parkinson disease, multiple sclerosis, type 2 diabetes, cardiovascular complications, osteoporosis, chronic pain, depression, autism and many others. Researchers feel there may be a correlation between low levels of vitamin D and the common cold and flu which corresponds to the months where we have the least amount of sun exposure. (This is especially true in areas like Humboldt County.) According to the Food and Nutrition Board the recommended intake orally is 200-600IU depending on your age and gender. The current suggested exposure of hands, face and arms for 10-20 minutes, three times a week, provides only 200-400 IU of vitamin D each time or an average of 100-200 IU per day during the summer months. The suggested amount of increase is 10 times the previous recommendations. The range will be 2000-6000IU respectfully. For light skinned people, with 85% of the body's surface exposed, they'll need 10-20 minutes of mid-day sun exposure, while dark skinned people will need 90-120 minutes of exposure. People with less pigment in their skin (lighter skin) use the sun more efficiently and make vitamin D faster than those with darker pigments. This may be related to the increased incidence of autism and type 2 diabetes among the African American population.

Why are we made to create such a great deal of vitamin D, in such a short period of time, if our bodies don't actually need it? Since Vitamin D is fat soluble, some of it is stored in our fat tissues. This means our bodies aren't going to excrete excess amounts each day in our urine, like we do with water soluble vitamins. For this same reason there are some risks to ingesting too much vitamin D, especially from taking high levels of supplements. Signs of ingesting too much vitamin D may result in loss of appetite,

vomiting, headache, drowsiness, diarrhea and calcification of soft tissues of heart and blood vessels. To avoid this, sunlight is the safest way to obtain your daily vitamin D.

UV-B rays are the primary cause for sunburn, and most sunscreens are created to block almost all of those UV-B rays. UV-B rays are only present during mid-day hours and are easily blocked by fog, clouds and smog. Only 5% of UV-B rays can penetrate glass. This is why it is important to take advantage of clear sunny days and get your daily UV-B exposure before protecting against sun burn. It is important to protect your skin from burning, so make sure that if you are planning to spend more than the recommended amount of time in the sun, apply sunscreen with UV-A and UV-B spectrum and wear protective hats and clothing as needed.

The Principal at Trinidad School, Geoff Proust, has been researching Vitamin D, and his research article is linked here if you would like to learn more about "The Medical and Fiscal Promise of Vitamin D: An essential component of personal health care and group health plans": http://www.humboldt.k12.ca.us/trinidad_sd/html/promise.pdf

Please reference the following sites for additional information:
The Vitamin D Council. www.vitamindcouncil.org;
Sullivan, Krispin CN. The Miracle of Vitamin D 2000:
http://www.consumerhealth.org/articles/display.cfm?ID=20010214043340