



Triple

Taking care of your body with Vitamin D

How does the body use vitamin D?



The **nervous system** uses vitamin D to carry messages from the brain to the body

The **immune system** uses vitamin D to fight bacteria and viruses

The **muscular system** uses vitamin D to move

Bones use vitamin D and calcium together to keep bone mass

How much vitamin D do I need per day?

Adults 19 years-70 years	600IU
Adults 71 years or older	800IU
Pregnant and breastfeeding women	600IU

What sources of vitamin D exist and how reliable are they?

The sun: Sun exposure increases vitamin D levels in the body. Sun exposure is inconsistent and limited in Centre County. Vitamin D production decreases under the following conditions:

- **Indoor sun exposure:** The skin cannot produce vitamin D from sunshine through a window
- **Cloudy shady climates:** Decreased exposure to sunlight under cloudy conditions decreases the skin's ability to produce vitamin D
- **Sunblock use:** Sunblock decreases exposure to vitamin D and is necessary in protecting the body from skin cancer.
- **Clothing:** Covered dress decreases sunlight exposure

Food: Very few foods naturally have vitamin D. For that reason, fortified foods are one of the best food sources of vitamin D. Check the label to ensure these foods have been fortified. Fortified foods include:

- Milk and yogurt
- Some brands of orange juice
- Breakfast cereal
- Fatty fish (natural source)

Supplements: Supplementing is a consistent and reliable way to obtain vitamin D. Discussing all supplement use with your doctor is important in avoiding drug nutrient interactions and toxicity. Supplements available include:

- D_2 Ergocalciferol
- D_3 Cholecalciferol: This option is more potent

How is diabetes and vitamin D related?

- Diabetic patients with liver and kidney dysfunction are at high risk for vitamin D deficiency. The liver and kidney metabolize vitamin D. Organ dysfunction can interrupt metabolism
- Vitamin D deficiency could be a contributing factor for type 1 and type 2 diabetes development
- Some evidence indicates vitamin D treatment improves glucose tolerance and insulin resistance

Three D's to taking action

- **Discuss** vitamin D supplements with your doctor and mention all currently used medications and supplements
- **Do** continue using sunblock to protect your body from skin cancer
- **Dance** outside in the sun and enjoy the precious present