

Pharmacy Benefit Dimensions®

An Independent Health  company

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How to safely get Vitamin D from the sun



Vitamins are organic compounds that are needed in small quantities to sustain life. While vitamin D can be derived from the ingestion of foods or supplements, it can also be obtained through exposure to the sun.

It would seem logical for people to assume that if the sun is out and they are outside in the sun, they are going to produce Vitamin D. However, that is not necessarily the case. There are many factors that come into play that can impact vitamin D production.

Generally speaking, the length of daily exposure required to obtain the sunlight equivalent of oral Vitamin D supplementation is difficult to predict on an individual basis and varies based on skin type, amount of skin exposed, latitude, season and time of day.

In addition, UVB rays – and only UVB rays – catalyze the production of Vitamin D, but those rays are reflected and blocked by the atmosphere. The more atmosphere UVB rays must travel through, the more

UVB rays are prevented from reaching the surface of the earth; and the lower the sun is in the sky, the more atmosphere before they even reach you. UVB rays can also be blocked by the ozone, clouds in the sky and pollution. Clothes and glass also do not allow UVB rays to penetrate skin, making Vitamin D production impossible. Sunscreen blocks the production of Vitamin D, further limiting your body's natural ability to create this essential vitamin.

So how does one receive safe amounts of sunlight exposure to stimulate the body's natural production of Vitamin D? The answer lies primarily in the angle of the sun.

For the sun to stimulate your Vitamin D production, the sun needs to be at a minimum of about 50 degrees, or greater, above the horizon. The sun should also be as close to overhead as possible; the closer to overhead it is, the greater its potential for stimulating Vitamin D production. This also minimizes the amount of time you must be in the sun to produce Vitamin D.

Now a word of caution: With exposure to sunlight comes exposure to the sun's ultraviolet rays which can damage the skin. This includes UVA rays and the same UVB rays needed to produce Vitamin D. While the body's natural production of Vitamin D is a good thing, make sure you are protecting yourself from sun exposure when you are not actively looking to stimulate Vitamin D production.

Furthermore, while your body produces Vitamin D naturally, it also does not mean your body makes an endless supply either. After too much sun exposure, your body actually stops producing the vitamin. It takes roughly 15 minutes in the sun during the middle of the day in the summer (a few times a week) to produce sufficient amounts of Vitamin D for your body to utilize.

So be smart about protecting your skin when enjoying the summer weather. There are some real, positive benefits to sun exposure, but there can also be negative consequences associated with long-term, unprotected exposure to the sun's harmful UV rays.

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Take the steps to protect your child from meningitis

While we're busy enjoying the summer season, it's not too early to start thinking about the upcoming school year. More specifically, parents should ensure that their children have their proper vaccinations and remain vigilant when it comes to spotting the signs and symptoms of common viral and bacterial infections, such as meningitis.

Meningitis is a rare but dangerous disease that strikes healthy young people without warning. Meningitis is an inflammation or swelling of the protective membranes covering the brain and spinal cord.

With September marking the height of the meningitis peak season, it is important that parents and teachers alike understand and recognize the signs and symptoms. These symptoms can include fever with cold hands and feet, vomiting, headache, stiff neck, dislike of bright light, joint or muscle pain, pale blotchy skin, drowsiness and confusion, and in babies, a dislike of being handled, an unusual cry, rapid breathing and bulging fontanelle on the child's developing skull.

While the meningococcal vaccine is recommended, it is a requirement by New York State for grade school students. As of September 1, 2016, all public and private school students entering the 7th, 8th, 9th, and 12th grades in New York State must be fully vaccinated against meningococcal disease types A, C, W and Y in order to attend school. In addition, several states also have enacted laws in recent years requiring the vaccine for college students.

The bottom line? Meningitis is rare but can be devastating. If you have questions about meningitis or the meningitis vaccine, contact your primary care physician.

Generic drugs are a safe, cost-effective option

There are many generic medications currently available that can help prevent or lessen the risks for chronic conditions such as heart disease, hypertension and asthma. These drugs are safe and effective alternatives to brand-name drugs. In fact, they're identical to their brand-name counterparts in terms of active ingredients, dosage and quality.

Generics do differ in one big way, however: cost. They typically are less expensive than brand-name drugs, and the savings can be significant. Going generic could save you between 30 and 80 percent (see page 3).

Why do brand-name medications cost more?

Brand-name medications are generally awarded patent protection for 20 years from the time they are discovered. By the time they are ready to be marketed and are approved by the Food and Drug Administration (FDA), they often have 10 or more years of patent protection left. When the patent expires, other drug companies can introduce competitive generic versions, but only after they have been thoroughly tested and approved by the FDA.

The basic requirements for FDA approval of generic and brand-name drugs are the same. Generic manufacturers usually do not have to complete the expensive clinical trial process to prove that the active medication is effective. Instead, they are allowed to refer to the brand name medication's clinical trial data which has been building during the 20-year patent protection. This allows generic manufacturers to offer less expensive medications.

Here are some generic medications that have been recently released or are scheduled to be available before the end of the year:

Brand Name	Generic Name	Category
Solodyn®	minocycline	Antibacterial
Namenda XR®	memantine	Alzheimers
Treximet®	naproxen/sumatriptan	Migraine
Locoid®	hydrocortisone butyrate	Dermatology
Syprine®	trientine	Wilson's Disease
Sustiva®	efavirenz	HIV

PBD takes a value-based approach to formulary management

Our drug formulary is a list of the most commonly prescribed drugs that make up your prescription-drug benefit plan. At PBD, our approach to formulary management emphasizes the use of lower-cost, therapeutically-equivalent medications.

So, what does this mean for you? Through a value-based formulary management model, PBD allows you to receive the right medication, at the right time, for the right cost.

Below is a top five list of the most utilized brand-name drugs and their generic equivalents. Whenever possible, we recommend the use of the lower cost, therapeutically-equivalent generic medications, which will save you money.

	Drug Name	Cost	Class
#1	Brand Drug IMITREX® INJ 6MG/0.5	\$450.52	Migraine
	Generic Equivalent SUMATRIPTAN INJ 6MG/0.5	\$184.46	
	COST DIFFERENCE	\$266.06	
#2	Brand Drug GLEEVEC® TAB 400MG	\$404.90	Cancer
	Generic Equivalent IMATINIB MES TAB 400MG	\$241.00	
	COST DIFFERENCE	\$163.90	
#3	Brand Drug TREXIMET® TAB 85-500MG	\$117.35	Migraine
	Generic Equivalent SUMAT-NAPROX TAB 85-500MG	\$93.87	
	COST DIFFERENCE	\$23.48	
#4	Brand Drug XALATAN® SOL 0.005%	\$97.82	Glaucoma
	Generic Equivalent LATANOPROST SOL 0.005%	\$6.00	
	COST DIFFERENCE	\$91.82	
#5	Brand Drug ACTONEL® TAB 35MG	\$97.52	Osteoporosis
	Generic Equivalent RISEDRONATE TAB 35MG	\$61.95	
	COST DIFFERENCE	\$35.57	