

Sunlight & Fresh Air

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Benefits of Sunlight

Sunlight is a blessing that many are becoming afraid of. We are told of skin cancer and it frightens many into wearing sunscreen. But is sunlight all that bad? Sunlight provides life to our whole planet. From the food we eat to the flowers that brighten our path. Nothing on our world would last long without sunlight, except a few cave dwellers, most plant life would perish without the energy from the sun. But is that all there is to the sun? Actually the sun has many benefits for our health and wellbeing. Not only does sunlight provide vitamin D it is also natural anti-bacterial agent. It even kills staph, the infection that hospitals sometimes have trouble getting rid of. Here is a short list of benefits:

- Aids in the production of Vitamin D (on direct contact only)
- Helps the body produce serotonin, the happy hormone
- Helps the body produce melatonin, needed for repairing the body
- Fights bacteria and viruses (on direct contact only)
- Assists with healing seasonal affective disorder
- Helps to keep our circadian rhythms in balance

Many of the natural things we take for granted everyday affect our health, but there is often little research done because frankly there is no money in researching something that is free to all. There are few scientific studies done on the benefits of sunlight but the limited ones done tells us we can't do without some sun exposure without risk to our health. The most studied is Vitamin D.

Vitamin D The Sunlight Vitamin

Ok, more and more we are hearing about vitamin D, but what does it actually do for us? First of all, it is technically not a vitamin but rather it is a hormone. "It is vital for calcium absorption and maintenance, needed in bone growth. It is also needed for the immune system and neuromuscular system. Vitamin D also inhibits inappropriate cell division, reduces blood vessel formation around tumors, and regulates proteins that affect tumor growth, thus it is a cancer fighter. Vitamin D helps your body absorb calcium along with MANY other health benefits." Poch, Angela. "Nutrition 4 Optimal Health", Higher Path Print & Production, Published 2017.

Vitamin D is not found in abundance in vegetarian foods, or any foods for that matter. But we can get it from the sun. Some experts suggest you need about 20 to 40 min per day in the summer and at least 30 to 90 minutes per day in the winter, with your arms and face exposed, depending on your skin color and how far you live from the equator. The further away from the equator the more you need. UVB is the best rays to produce D, which is reduced in the winter and at higher latitudes. An easy test - if you can't get a tan, there is not enough sun (yes, you can tan in the winter, just not as quickly or as dark). The best times are from 11am to 4pm, avoiding scorching times for those in hotter climates. Burning is linked to an increase risk of skin cancer.

You'll get the added benefits of fresh air, so why not combine it with some exercise! What about when it's really cold outside? Most doctors who have researched the health benefits of vitamin D, recommend supplementing and some even recommend tanning booths in short amounts (be sure it is emitting UVB).

What About Skin Cancer?

Most experts say as long as you don't overdo it, and by that they mean, get sunburnt, moderate sun exposure is not likely to increase your risk. "excessive UVR exposure accounts for only 0.1% of the total global burden of disease in disability-adjusted life years (DALYs), according to the 2006 World Health Organization (WHO) report The Global Burden of Disease Due to Ultraviolet Radiation. DALYs measure how much a person's expectancy of healthy life is reduced by premature death or disability caused by disease." <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2290997/> So, according to the World Health Organization, excessive sunlight only accounts for 1/10th of 1% of diseases, hardly something to be afraid of. Far more people deal with vitamin D deficiency, depression, and bacterial infections, but yet we don't hear news reports about people not getting enough sunlight, there's just no money in promoting something that is free.

Air

So we know we'd die in just a few minutes without air. But yet we take it for granted as much or more than sunlight. How, we have to breathe right? Yes, but we aren't forced to breathe properly, nor is the air around us always pure. Fresh air and deep breathing are good for the digestive system, circulatory system, and immune system. They also help with stress management.

Deep breathing is a technique learned and should be taught as one of the founding health principles next to nature and exercise. There are a few difference techniques, but all should teach the person to fill all their lungs and control the rate of breath. We will share two ways to deep breathe. The first is to increase lung capacity and get more oxygen. Take a very deep breath in and quickly count to 20, then purse your lips and exhale. When you count to 20, count really fast, like you are playing hide and seek and you can't wait to find all the little scoundrels hiding around the house. LOL

The second technique is more relaxing and helps to lower the heart rate. Breath in for a count of five, and breath out for a count of five. You can old the breath in for 5 as well. For example. In through your nose for five, hold for five, exhale through your nose for 5. The third technique controls the rate of breathing per minute. Inhale for a count of four, exhale for a count of six this time, both times through your nose. Repeat six times.

Again, there are several different ways to do breathing techniques. These are just a few. But the science behind deep breathing is very real whichever method works best for you. The physiology of breathing also plays a role in good deep breathing. The diaphragm goes down to our stomach. When we breath properly our stomach expands then our chest. IF only the chest is moving you are not breathing full enough. My martial arts instructor said to visualize a piano on your chest. This forces you to think about breathing through your abdomen. "Deep abdominal breathing encourages full oxygen exchange — that is, the beneficial trade of incoming oxygen for outgoing carbon dioxide. Not surprisingly, this type of breathing slows the heartbeat and can lower or stabilize blood pressure." <https://www.health.harvard.edu/staying-healthy/take-a-deep-breath> Again, I encourage you to read the entire article. That link is: www.health.harvard.edu/staying-health/take-a-deep-breath.

Deep breathing has been shown to trigger physiological responses in the body which affect not only your physical body but your emotions as well. If you'd like to learn more about the science of breathing in terms of how it affects the vagus nerve and the body as a whole, I encourage you to read this article from Psychology Today "The Science of Slow Deep Breathing". See the link on the screen. <https://www.psychologytoday.com/blog/neuraptitude/201602/the-science-slow-deep-breathing>. In this article they studied the last breathing technique we discussed, breath in through the nose for 4, and exhale through the nose for 6. Also, you should know in this article PSNS refers to the parasympathetic nervous system. "The sum total of slow, deep breathing results in a relative increase in

PSNS/"Brake" activity. And in a state of ... anxiety there is no better remedy than a biological brake. In fact, high PSNS/"Brake" tone has been associated with trait happiness, resilience in the face of stress, and childhood cognitive performance." MacKinnon, Matthew. "The Science of Slow Deep Breathing." Psychology Today, Sussex Publishers, 7 Feb. 2016, www.psychologytoday.com/blog/neuraptitude/201602/the-science-slow-deep-breathing.

Since deep breathing requires the full use of the diaphragm, restrictive clothing plays a role in hindering this process. Also, in regard to circulation, making sure the body is adequately clothed for the weather is important. Down vests are not the best choice for this reasons. Use coat and long johns in cold weather, always keeping in mind the extremities need as much protection as the core. I for one, wear dress boots and long johns to church in the winter. Shoes are put on the back shelf till the weather is sufficiently warm. You can look classy and still be healthy. I won't go into clothing any further except to summarize the chapter on dress. Clean, modest, simple, good quality, durable, beautiful, warm (for cold weather), appropriate to the occasion, nice colors, suitable for the time and culture, and fits properly.

Fresh Air

I have no desire to add more stress and fear to your life, but I'd be amiss if we didn't talk about fresh air. Deep breathing gets the oxygen to your cells but what about the quality of that air? If you live in a city or urban environment you should watch the air quality warnings. Many governments and news channels post these on their websites. Whenever possible get out into nature, even a walk in the park. Plants some flowers around your yard, grow an herb garden in the window sill.

Believe it or not house plants can help purify the air. Indoor air is often laden with chemicals from carpet, paint, vehicle fumes, plastics, and so much more. "VOC's or Volatile organic compounds are organic chemicals that have a high vapor pressure at ordinary room temperature... Some VOCs are dangerous to human health or cause harm to the environment. Anthropogenic VOCs are regulated by law, especially indoors, where concentrations are the highest. Harmful VOCs typically are not acutely toxic, but have compounding long-term health effects. Because the concentrations are usually low and the symptoms slow to develop, research into VOCs and their effects is difficult." https://en.wikipedia.org/wiki/Volatile_organic_compound. There are many people suffering from asthma and environmental allergies. I know myself, I get sore throats in a room that's been freshly painted. The best plants for filtering these chemicals out of the air are:

Boston Ferns - "Boston Ferns remove more formaldehyde than any other plant. They're also highly efficient at removing other indoor air pollutants, such as benzene and xylene—components of gasoline exhaust that can migrate indoors if you have an attached garage."

English Ivy - formaldehyde

Rubber Plants and Janet Craigs

Peace Lily - "One of the best plants for removing formaldehyde, it also removes benzene and certain VOCs that are emitted by harsh cleaning products"

Taken from "7 Plants That Can Actually Purify Your Indoor Air: These household plants are all NASA scientist-approved for helping clear airborne toxins." by Emily Main, Rodale's Organic Gardening, retrieved 2017-11-27.

<https://www.rodaleorganiclife.com/garden/7-plants-purify-indoor-air>

Other good plants:

"Snake plants - also known as Mother-in-law's tongue - give out oxygen at night; place one in your bedroom and

you'll breathe better while you sleep. They also combat xylene, formaldehyde, trichloroethylene, toluene, and benzene from the air...

Aloe Vera - This succulent fights benzene (found in detergents and plastics) and formaldehyde (found in varnishes and floor finishes). As the gel inside also treats burns, keep this sun-loving plant on your kitchen windowsill...

Spider Plants - "The resilient spider plant combats carbon monoxide, xylene (found in petrol and rust preventive) and formaldehyde (emitted with vehicle exhausts), making them the ideal choice for garages and sheds. They work best in cool temperatures and indirect sunlight."

Taken from <http://www.telegraph.co.uk/gardening/how-to-grow/the-best-houseplants-to-clean-the-air-in-your-home-as-recommende/>

Outdoor pollution is less in our control but we can do our part to protect our environment. Added benefit, often going green is actually cheaper in the long run. For example, living closer to work or working from home saves gas money as well as producing less pollution. Planting trees, flowers, and shrubs, voting for more urban park development and even container gardening all do their part in helping purify our air.