

Pandemic Safety Rule #1: Don't Shelter in Place

New research suggests that the COVID-19 virus spreads more readily indoors. A recent study on outbreak patterns noted that "rapid person-to-person transmission of COVID-19 appears likely to have occurred in healthcare settings, on a cruise ship, and in a church." Infection clusters were "associated with closed environments" such as fitness centers, restaurants, and hospitals. Stale indoor air may play a decisive role. A study of ventilation and infection rates in hospital rooms occupied by tuberculosis patients showed that older pre-1950s hospital wards, with large windows on more than one wall and tall ceilings, had lower TB-infection rates than more modern designs. During the Spanish flu pandemic

of 1918-1919, it was observed that the simple act of being outdoors, exposed to fresh air and sunshine, appeared to have a strong therapeutic effect on both limiting infections and speeding up recovery time among the infected.

Frieden T, Lee C, "Identifying and Interrupting Superspreading Events—Implications for Control of Severe Acute
Respiratory Syndrome Coronavirus 2,"
Emerging Infectious Diseases, 2020;
26(6), doi:10.3201/eid2606.200495; Qian
H, Li Y, Seto W, et al., "Natural ventilation for reducing airborne infection in hospitals,"
Building and Environment, 2010; 45:
559-565; Hobday R, Cason J, "The open-air treatment of pandemic influenza," American Journal of Public Health, 2009; 99
Suppl 2(Suppl 2): S236—S242, doi:10.2105/AJPH.2008.134627.



Pandemic Safety Rule #2: Don't Wear a Cloth Mask

The World Health Organization warned that wearing a medical mask "may create a false sense of security" against COVID-19 and that "no evidence is available on its usefulness to protect non-sick persons." A study published in the British Medical Journal found that healthcare workers caught viruses from their patients 13 times more often if they wore a cloth mask than if they wore a medical mask. A Chinese study found that a medical mask was no more protective against viruses than wearing no mask at all. The studies claim that cloth masks provide breeding grounds for viruses and that medical masks are ineffective against them.



WHO, "Advice on the use of masks in the context of COVID-19," 6 April 2020, at https://www.who.int/publications-detail/ advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcaresettings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak; MacIntyre C, Seale H, Dung T, et al., "A cluster randomised trial of cloth masks compared with medical masks in healthcare workers," British Medical Journal Open, 2015, Vol. 5, No.4: e006577, doi:10.1136/bmjopen-2014-006577; MacIntyre C, et al., "A cluster randomized clinical trial comparing fit-tested and non-fit-tested N95 respirators to medical masks to prevent respiratory virus infection in health care workers," Influenza and other Respiratory Viruses, 2011; 5(3): *170-179, doi:* 10.1111/j.1750 □ 2659.2010.0 0198.x.



Pandemic Safety Rule #3: Get Plenty of Sunshine

During lockdown scenarios, many people are spending more time than usual indoors. It is well known that there is a seasonal drop in Vitamin D, or 25-hydroxyvitamin D (25(OH)D), levels, especially in northern latitudes. Levels of 25(OH)D are quite low in nursing-home residents, and supplementation with 2,000 IUs of Vitamin D can safely bring levels to normal in most patients. Researchers at Trinity College in Dublin suggested in an editorial in *Alimentary Pharmacology* & *Therapeutics* that Vitamin-D deficiency

could play an important role in the severity of COVID-19 infections. They stated that "the evidence supporting a protective effect of vitamin D against severe COVID-19 disease is very suggestive, a substantial proportion of the population in the Northern Hemisphere will currently be vitamin D deficient, and supplements, for example, 1000 international units (25 micrograms) per day are very safe."

Schwalfenberg G, Genuis S, "Vitamin D supplementation in a nursing home population," Molecular Nutrition and Food Research, 2010; 54(8): 1072-1076; Grant W, Lahore H, McDonnell S, et al., "Evidence that Vitamin D Supplementation Could Reduce Risk of Influenza and COVID-19 Infections and Deaths," Nutrients, 2020; 12(4), 988, at https://doi.org/10.3390/nu12040988; Rhodes J, Subramanian S, Laird E, Kenny R, "Editorial: low population mortality from COVID-19 in countries south of latitude 35 degrees North supports vitamin D as a factor determining severity," Alimentary Pharmacology & Therapeutics, 2020; 51(12): 1434-1437, https://doi.org/10.1111/apt.15777.

Grapes and Sunshine?

The Environmental Working Group (EWG) reports that Department of Agriculture data reveal that raisins show high levels of contamination from pesticide residues. Of 670 raisin samples analyzed, 99 percent tested positive for at least two pesticides. The average sample was contaminated with more than 13 pesticides. The USDA tested both conventional and organic raisins. Pesticides were not detected as frequently on organic raisins, but in some cases there were no differences between organic and conventional. Imidacloprid, a bee-killing and neurotoxic nicotinoid pesticide, was detected on 84 percent of raisins. Bifenthrin, a pesticide associated with cancer and damage to the developing nervous system, was found in 77 percent of raisin samples. It is classified by the Environmental Protection Agency as a possible human carcinogen. Since even organic raisins are not pesticide free – 78 percent of organic raisins were contaminated with bifenthrin - the EWG recommends that consumers choose uncontaminated fresh produce instead of raisins of any variety. Many parents give their children raisins as a "healthy

sweet." According to Zion Market Research, children under the age of 15 eat about half of the raisins consumed in the U.S., around 208 million pounds of raisins each year.

EWG Science Team, "EWG's 2020 Shopper's Guide to Pesticides in Produce," EWG, March 25, 2020, at https://www.ewg.org/foodnews/summary.php; ZMR staff, "Raisins Market: by Product Type (Natural Seedless, Golden Seedless, Black Currant and others (Sultana and Muscat), by Application (Food Industry, Food Service Providers and Households) and by Geography: Global Industry Perspective, Comprehensive Analysis, and Forecast, 2018 – 2026," Zion Market Research, October 18, 2019, at https://www.zionmarketresearch.com/report/raisins-market





Seafood for a Healthy Gut

Scientists from Norway and Denmark showed that feeding people a seafood-rich diet for a month stimulated growth of more beneficial microorganisms and fewer harmful ones in their gut microbiomes than when the same people were fed a diet without seafood. The researchers recruited 20 people and broke them into two groups. Half were given lunches and dinners that featured cod, pollock, and scallops. The other half stuck to a diet with mainly chicken, turkey, lean beef, pork, eggs, and milk products. After a month, both groups took a three-week break and then switched to the other diet. When they were on the seafood diet, the participants showed an increase in helpful probiotic bacteria and a decrease in levels of the harmful types. Other studies have shown that eating omega-3 fatty acids can increase the abundance of lactobacillus in your microbiome and can increase levels of another helpful bacterium called Bifidobacterium. Bifidobacteria are important not only for digestion but also for controlling the population of harmful bacteria. Omega-3 fatty acids are also anti-inflammatory, which is important for gut health by making the intestinal walls less permeable.

Schmedes M, Brejnrod A, Aadland E, et al., "The Effect of Lean-Seafood and Non-Seafood Diets on Fecal Metabolites and Gut Microbiome: Results from a Randomized Crossover Intervention Study," Molecular Nutrition & Food Research, 2019; 63(1):e1700976, doi: 10.1002/mnfr.201700976; Bomba A, Nemcová R, Gancarcíková S, et al., "The influence of omega-3 polyunsaturated fatty acids (omega-3 pufa) on lactobacilli adhesion to the intestinal mucosa and on immunity in gnotobiotic piglets," Berliner und Münchener tierärztliche Wochenschrift, 01 July 2003; 116(7-8):312-6; Watson H, Mitra S, Croden F, et al., "A randomised trial of the effect of omega-3 polyunsaturated fatty acid supplements on the human intestinal microbiota," Gut, 2018, Vol. 67, Issue 11:1974-1983.