

Table 1. Evidence that UVB exposure and/or vitamin D reduces risk of adverse health outcomes

Topic	Findings	References
Blood pressure	Lower blood pressure at lower latitudes	(Rostand 1997)
Blood pressure	Solar UV exposure reduces	(Weller, Wang et al. 2020)
Breast cancer	Sun plus dietary vitamin D reduces risk	(Engel, Fagherazzi et al. 2011)
Breast cancer	Vitamin D supplementation reduces risk	(McDonnell, Baggerly et al. 2018)
Cancer mortality rates	Solar UVB exposure reduces risk of most types of cancer	(Moukayed and Grant 2013)
Cancer, solar UVB, vitamin D	UVB exposure and vitamin D reduce risk of most types of cancer	(Grant 2016)
Cognitive function	Vitamin D benefits depressed individuals	(Kent, McClure et al. 2009)
COVID-19	Disappears in summer	(Li, Wang et al. 2020)
Crohn's disease	Sun exposure reduces risk	(Jantchou, Clavel-Chapelon et al. 2014)
Dental caries	Lower rates in sunny states	(Grant 2011)
Employee mental health	Sunlight benefits	(An, Colarelli et al. 2016)
Fetal neurocognitive development	Higher maternal 25OHD improves it	(Whitehouse, Holt et al. 2012)
Food allergy	Higher risk at higher latitudes (lower solar UVB doses)	(Osborne, Ukoumunne et al. 2012)
Influenza	Disappears outside of mid-winter	(Ianevski, Zusinaite et al. 2019)
Multiple sclerosis	Higher UVB dose in France reduces risk	(Orton, Wald et al. 2011)
Preterm birth	Higher vitamin D level greatly reduces risk	(McDonnell, Baggerly et al. 2017)
SARS-CoV-2 positivity	Higher vitamin D level can reduce risk by 50%	(Kaufman, Niles et al. 2020)
Serotonin production, SAD	Bright sunlight increases serotonin production	(Lambert, Reid et al. 2002)
Skin pigmentation	Pale skin pigmentation is an adaptation to lower ambient solar UV doses	(Chaplin 2004), (Jablonski and Chaplin 2010), (Jablonski 2021)
Type 1 diabetes mellitus	High latitude globally is associated with increased risk	(Mohr, Garland et al. 2008)
Type 1 diabetes mellitus	Higher maternal vitamin D level reduces risk	(Sorensen, Joner et al. 2012)
Type 2 diabetes mellitus	Higher latitude is associated with higher risk	(Lindqvist, Olsson et al. 2010)

