



CIRCADIAN PROTOCOL COMPENDIUM

QUANTUM / CIRCADIAN HEALTH PROTOCOLS	WHAT IT DOES	RESEARCH PAPERS	NOTES
<p>1. See the sunrise & get early morning sunlight</p>	<p>Sets your master circadian clock. Turns on multiple hormones: leptin, cortisol, melatonin production. Red & IR frequencies increase cellular energy production & cellular repair/healing</p>	<p>Effects of Dawn and Morning Blue Light on Daytime Cognitive Performance, Well-being, Cortisol and Melatonin Levels Chronobiology International, 2013; 30(8): 988–997 https://orbi.uliege.be/bitstream/2268/171514/1/Gabel_CI_2013.pdf</p> <p>Transition from Dim to Bright Light in the Morning Induces an Immediate Elevation of Cortisol Levels The Journal of Clinical Endocrinology & Metabolism, Volume 86, Issue 1, 1 January 2001, Pages 151–157 https://academic.oup.com/jcem/article/86/1/151/2841140</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
<p>2. Get bright natural light through the day</p>	<p>Bright (high lux) light elevates hormones (eg testosterone, estrogen, melatonin) & neurotransmitters (eg dopamine, serotonin), elevates mood, decreases anxiety</p>	<p>Time spent in outdoor light is associated with mood, sleep, and circadian rhythm-related outcomes. Journal of Affective Disorders, Volume 295, 1 December 2021, Pages 347-352 https://www.sciencedirect.com/science/article/abs/pii/S0165032721008612</p> <p>Bright daytime light enhances circadian amplitude in a diurnal mammal PNAS June 1, 2021 118 (22) e2100094118 https://www.pnas.org/content/118/22/e2100094118</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
<p>3. Get UVA sunlight on eyes and skin</p>	<p>Releases nitric oxide, lowers blood pressure</p>	<p>UVA-Induced Release of Nitric Oxide from Skin May Have Unexpected Health Benefits Journal of Investigative Dermatology (2014) 134, 1791–1794 https://core.ac.uk/download/pdf/82537127.pdf</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>



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8. Grounding	Grounding = free electrons from the earth to build increased cellular redox (net negative charge)	<p>The effects of grounding (earthing) on inflammation, the immune response, wound healing, and prevention and treatment of chronic inflammatory and autoimmune diseases J Inflamm Res. 2015; 8: 83–96. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4378297/</p> <p>Electric Nutrition: The Surprising Health and Healing Benefits of Biological Grounding (Earthing) Altern Ther Health . 2017 Sep;23(5):8-16. https://pubmed.ncbi.nlm.nih.gov/28987038/</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
9. Cold Thermogenesis	CT = increased energy via increased throughput of the electron transport chain	<p>Cold-induced thermogenesis in humans Eur J Clin Nutr. 2017 Mar; 71(3): 345–352. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6449850/</p> <p>Cold acclimation recruits human brown fat and increases nonshivering thermogenesis J Clin Invest. 2013 Aug 1; 123(8): 3395–3403. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3726172/</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>