

Noggin Oregon Senate Testimony in favor of Permanent Standard Time
BILL GRIESAR: Introduction – Permanent Standard Time is best for our brains

My name is [Bill Griesar](#) and I am a Teaching Assistant Professor of [Interdisciplinary Neuroscience](#) in the [Department of Psychology](#) at [Portland State University](#). Along with my colleague [Jeff Leake](#), I co-founded an entirely volunteer nonprofit called Northwest Noggin ([nwnoggin.org](#)), which brings together graduate students pursuing federally funded research and undergraduates studying the brain, along with art students and artists.

We regularly visit public K-12 classrooms, youth correctional facilities, houseless youth nonprofits (including p:ear, in Old Town Portland), museums, coffee shops, pubs, urban and rural communities, tribal majority schools - and even [Congress](#) - along with real brain specimens, and brain-related art projects - to hear what people already know about brains, and what they want to explore further. Over the last twelve years we've heard from over 65,000 Oregonians in Astoria, Redmond, Heppner, La Grande, Beaverton, Sisters, Grants Pass, Amity, Hillsboro, Warrenton, Hubbard, Willamina, Lone, Seaside, Siletz and more - to explore how our remarkable, changeable brains help make us who we are.

One topic that comes up again and again across the state is the critical importance of sleep.

Sleep is essential for brain health. During good sleep, deep sleep, the kind of restorative sleep we all crave, the fluid surrounding our brain (known as cerebro-spinal fluid, or CSF) gets an opportunity to flush through the brain, literally cleaning it out. During deep, "slow wave" sleep, star-shaped brain cells called astrocytes, which gently wrap the small vessels (capillaries) delivering blood to brain tissue, pull back just a bit, allowing that CSF to reach deeply into every nook and cranny and actually remove many chemicals that build up because of all our metabolic activity during the day.

Our ability to sleep well, as we know from experience, is profoundly impacted by exposure to light. Permanent standard time is best aligned with the natural circadian rhythms of our own brains and bodies, allowing us to wake up more days of the year in sunlight.

Adolescents forced to rise in darkness (as young people and parents know, this is not easy to do) are sleep-deprived, with serious consequences for brain development and mental health. Every major neurodegenerative disorder, including Parkinson's, and Alzheimers disease - is preceded by about a decade of poor sleep. Permanent standard time is the policy supported by all the sleep research and medical organizations in the country, including the American Medical Association, the Sleep Research Society, the American Academy of Neurology, the American Academy of Sleep Medicine and more.

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So today it's my great pleasure to introduce some of our informed and enthusiastic Northwest Noggin volunteers who are eager to share relevant research, outreach and examples of effective policy change, including the adoption of permanent standard time, that will make Oregon a healthier state for all.

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