

Tech Safe Summer Travels: an Opportunity for Low-EMF Family Fun

by Mary Anne Tierney, RN, MPH, EMRS



What a joy for many of us to be able to travel again this summer after last summer's Covid restrictions! The sweet memories of summer vacations are often the most cherished moments of our lives.

While traveling has its inerrant stressors, there is also an invisible hazard that is more prominent with traveling. The numerous adverse health effects of the microwave radiation emitted by all wireless devices are unfortunately amplified in vehicles. The steel chassis causes the radiation to bounce around – creating a similar effect as inside a microwave oven. More than 30 years of research, producing 20,000+ peer-reviewed studies, point to a wide array of serious health problems that can fortunately be prevented.

For our children and grandchildren, summer can be an opportunity for their little bodies and brains to recover from the intense radiation exposures of industrial-strength Wi-Fi in schools and countless hours of wireless exposure from remote learning. Children are more vulnerable to this radiation, as their developing bodies and brains absorb far more radiation than adults due to their thinner skulls, immature nervous and reproductive systems, and their high number of stem cells, which are rapidly dividing and more sensitive to all toxins. They will also have a greater cumulative exposure to this radiation in their lifetime, unless intentionally living and learning in low-EMF environments. Yet hours of car travel - bent over their favorite devices – can be a set-up for the rapid onset of symptoms like irritability, attention and behavior challenges, headaches, poor sleep, and more.



The American Academy of Pediatrics recommended these tips below for reducing radiation exposures from cell phones. This guidance is intended for both children and adults alike.

- Do not use the cell phone up to your head. Use speaker mode to limit radiation to the brain.
 - Avoid carrying the phone against your body, like in a pocket, sock, or bra.
 - Make only short or essential calls on cell phones.
 - To watch a movie on your device, download it and switch to “airplane mode”
 - Keep an eye on the signal strength (ie: how many bars you have). The weaker the signal, the harder your phone has to work and the more radiation it gives off.
- Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder (and emits more radiation) to get a signal through metal.
 - Remember that cell phones are not toys or teething items. ~ from AAP's [HealthyChildren.org](https://www.healthychildren.org)

Why the Worry? “Clear evidence of carcinogenesis” and DNA damage, found by the National Toxicology Program (NTP) in its gold-standard, \$30 million animal study of cell phone radiation, is what prompted the American Academy of Pediatrics (AAP) to publish the guidelines above. The National Toxicology Program (a branch of the U.S. National Institutes of Health) released their initial findings in 2016, and then held a formal peer review process in 2018, which included the world’s top EMF scientists, who were vetted to assure no conflicts of interests. The WHO’s International Agency of Research on Cancer classified cell phone radiation as a “possible carcinogen” in 2011, while encouraging more research on animals to confirm human studies that found increased cancer risks. In 2018, the world-renowned Ramazzini Institute in Italy found equally serious cancer risks as NTP, yet at much lower exposures in the “far field”- such as the exposure by cell towers and now 5G antennas.

While our own U.S. government has been slow to set meaningful safety standards for wireless devices, we can fortunately heed the collective caution that has been issued from many wireless-wise countries around the world, including France, Israel, Italy, Belgium, Cyprus, and Russia. Below is just a sampling of some of the other serious health effects, as found in more than 20,000 peer-reviewed studies:

- Oxidative stress and the creation of free radicals, increasing our risk of acute infections (including Covid 19), chronic pain, and also advancing the aging process
- Impaired fertility, both in men and woman
- Insomnia, anxiety, depression, attention and memory challenges
- Autism Spectrum Disorder, which improves dramatically in low-EMF living environments
- Neuro-degenerative diseases like Alzheimer’s disease, ALS, and Parkinson’s disease

Here are some **Reliable Resources to Learn More:**

- Physicians for Safe Technology: MDSafeTech.org/ Research, education
- Environmental Health Trust: EHTrust.org Education, research, [policies](#), free resources to print
- [Baby Safe Project.org](http://BabySafeProject.org) Advice for pregnant women and those seeking to conceive a child
- BioInitiative.org Compilation of more than 4,000 studies from 29 scientists worldwide
- [Building Biology Institute.org](http://BuildingBiologyInstitute.org): education, safety standards; go to Resources for free podcasts, etc
- EMF-portal.org/en Data-base of >30,000 studies from Germany’s Aachen University
- SaferEMR.com News/policy analysis on EMFs; based at UC Berkeley School of Public Health
- [Screen Strong.com](http://ScreenStrong.com): provider of podcasts and resources for families to reduce kids’ screen time

Below are **three basic principles** for lowering your exposure:

1. **Increase distance** (keeping the phone off your body and using a corded headset)
2. **Decrease the duration** of exposures (ie: turning off Wi-Fi at night)
3. **Reduce power density– or intensity** of the radiation exposure. Turning off your cell phone’s Wi-Fi, Bluetooth, and GPS or locator services are easy ways to do this.

Since using our devices less frequently takes more advance planning than the convenience of frequent downloads, here are some ideas to ease the transition:

- Purchase a corded head set for your phone. “Ear buds” or “air pods” create distance from your phone, but still emit extreme amounts of radiation. Reputable brands include headsets from ElectraHealth.com or ShieldYourBody.com
- For an iPhone, these headsets require the "Lightning to 3.5 mm Headphone Jack Adapter" only from Apple.com
- Use a shielded cell phone case to reduce the radiation. Check out ShieldYourBody.com
- Download any desired audiobooks, podcasts, and movies in advance onto your devices.
- Try hard-wiring an iPhone or iPad for any downloads, using an adaptor such as the Ethernet Wired Dongle from TechWellness.com
- For children’s screen time, consider a simple portable, rechargeable DVD player.
- Instead of streaming data (which massively increases radiation levels), borrow movies and audiobooks from the local library.
- Pack a battery-powered alarm clock to use instead of a cell phone at bedside. Sleep is our most important time to recover from the radiation exposures of the day. Casio and Braun both make small alarm clocks with dim lighting and no audible tick.
- Ask for overnight accommodations that are away from a modem, Wi-Fi router, and cell towers. AntennaSearch.com lists many (though not all) of the registered cell towers in the U.S.



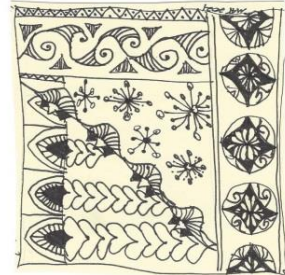
While in a car or plane:

- Keep your devices on Airplane mode; allows phone calls to go to voicemail.
- Step out of the car to make cell phone calls and text; rest areas are ideal for tech stops
- Disable the car's Blue Tooth by going to Settings on most dashboards. This will also reduce the common symptom of "brain fog" from wireless radiation, and make driving a safer experience.

Calming, Creative Alternatives: Our long travel days can be an outstanding opportunity to begin or complete crafts and handwork projects, like crocheting, knitting, and embroidery. These traditional "right brain" activities can calm the nervous system and enhance our brain development.

Limiting screen time may frustrate kids at first. Yet they adjust when they see their parents also practicing their creativity.

- Consider creating a family wish list of desired craft or handwork projects. Shop for any needed supplies before departure.
- Sing aloud together, sharing with each other your favorite albums on CD.
- Listen together to an audiobook that you have downloaded in advance.
- Gather up some car games, like magnetic checkers.
- Doodle! Zentangle is an easy-to-learn way of doodling with simple patterns for Relaxation. TanglePatterns.com has a downloadable beginners' guide.



Once You Arrive, Connect Barefoot with Mother Earth! Have you even noticed all the happy faces while walking barefoot on the beach or at a waterfall? Touching earth with bare feet in water is the ideal environment for "grounding" - connecting to the earth for its calming and healing properties. (The earth has a negative electric charge exactly the opposite of our positive electric charge - about 7.83 hertz or cycles per second). In addition, the negative ions in the air beside natural bodies of water have been showed to improve our respiratory function and reduce symptoms of stress.

Enjoy your getaways this summer! Even if you pick just one of these ideas, know that every reduction in radiation exposure is worthwhile. Fortunately, we can control much of this exposure in our own homes and vehicles. And while we do so, we safeguard our family's health – our most precious resource.

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