

# Our Children @ Risk



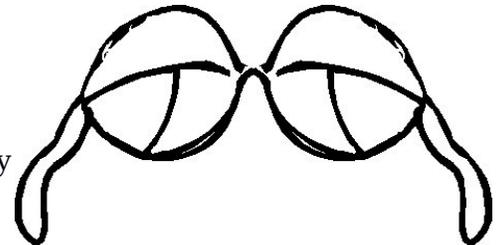
## How EdTech may be harming our children's physical health

PAA has spent extensive time looking into quantities of writing and research that raise red flags about the impact of the EdTech explosion on our children. What we have found out about the EdTech push alarms us, and should alarm any parent.

Our concerns include a set of frightening threats to our children's mental/emotion, intellectual/academic, and physical health. Some of the effects of excessive use of digital devices on children's **physical health** are listed below.

### Physical health issues:

- *Obesity and other diseases:* Increased use of digital devices may result in less time moving, in gym or recess, etc. and an increase in time sitting, which is associated with many potential physical problems and diseases (39)\*. Health issues related to prolonged sitting include:
  - heart problems, diabetes, metabolic syndrome, cancer, back and neck pain (among other orthopedic problems). (35, 36, 37, 38, 39). Please see PAA's detailed fact sheet on sitting here: <http://parentsacrossamerica.org/wp-content/uploads/2016/08/Sittingfinal8-19-16-1.pdf>
- *Vision problems:* Childhood myopia has doubled in the past 50 years, and experts attribute this to increased screen time. (34)
  - Blue-light damage to the retina can lead to macular degeneration and blindness. (33, 34)
  - Eyestrain/"computer vision syndrome" includes dry eyes, blurry vision, headaches, neck and shoulder pain, and sleeplessness. (9, 20, 33)
- *Radiation exposure:* In May of 2011, the World Health Organization classified cell phones (and other wireless devices) as a [category 2B risk](#) (possible carcinogen) due to radiation emission (WHO 2011). James McNamee with Health Canada in October of 2011 issued a cautionary warning stating "Children are more sensitive to a variety of agents than adults as their brains and immune systems are still developing, so you can't say the risk would be equal for a small adult as for a child." (*Globe and Mail* 2011). In December, 2013 Dr. Anthony Miller from the University of Toronto's School of Public Health recommend that based on new research, radio frequency exposure should be reclassified as a 2A (probable carcinogen), not a 2B (possible carcinogen). (6)
  - Scientific research documents that wireless radiation could increase cancer risk and has been shown to damage reproductive systems and alter neurological development. (27)
- *Sleep disruption:* Excessive screen time disrupts sleep and desynchronizes the body clock (9, 11, 20, 28, 30)



The numbers following each point refer to entries in our EdTech Documentation paper at <http://tinyurl.com/edtechdocu>.

Please also see the full set of PAA's reports at <http://tinyurl.com/PAAEdTechreports>.

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