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Thesis

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Our society has revolved around screens for the past decade. They have only been apart of society for a couple of years, so we don't know too much about their effects. So what's the problem? There has been proven research that overused time affects the endocrine system, melatonin, cortisol, and insulin levels. Obesity, the cardiovascular system, the brain, and posture are also heavily affected. Many instances with either positive or negative effects derive from screen time use.

As it affects the brain, screen time can have strong neurological effects. It may affect dopamine, an important neurotransmitter influencing arousal, attention ability, and response to new stimuli (Lissak 1). Increased dopamine levels at young ages may have long term effects and production of dopamine in the future. Video games are also a large part of screen time for children and those may generate limited neurological functioning, it is only focused on the game and nothing else, affecting decision making and functioning when playing video games. This increases anti-social behavior of kids making them want to use screens rather than play with friends.

Within the endocrine system, melatonin, cortisol, and insulin hormone are heavily affected. "Prolonged exposure to screens- even passive viewing; causes sleep disorders, and thereby affect levels of melatonin hormone, which regulates sleep and plays an important role in

strengthening the immune system” (Brown 1). Children who are using screens more are losing sleep, slowing their physical development. The cortisol hormone, which helps the body function under stressful situations, is deprived as a result of screen use and so blood sugar levels and the immune system are affected (Brown 1). A third hormone, insulin is heavily affected. Production of the energy storing hormone causes dysfunction in the secretion of insulin can damage the body’s ability to absorb glucose and produce energy (Brown 1).

The many unhealthy habits that develop from screen use are causing disorder in basic bodily functions too. Screen time is linked to obesity due to unhealthy eating habits like snacking while watching TV. “Various studies have found that sitting during video games is linked to an increase in blood pressure, irregular cholesterol levels, and to the narrowing of the arteries reaching the eyes, a phenomenon known as an indicator of future risk of heart disease” (Wills 1). High correlation between computers/devices time and high blood pressure have also been shown to be prevalent. Cardiovascular disorders, such as hypertension and stroke, are at a higher risk to occur. Another main developing issue is posture. “Sitting for long hours leads to bad posture, causing neck and shoulder pain, pain in the hands, and development of early scoliosis” (Wills 1).

As stated, a lifestyle screens have become, and implemented into our society fully and as much as possible nowadays. With this become significant problems for children and adults when abusing the technology. Significant problems in development and educational progress, affect multiple hormones within the body, and less to bad posture or obesity. Significant problems easily resolved with a reduction of screen time that can lead to exceptional improvements in children’s health and development. This can be done through limiting screen

time and avoiding eating in front of screens, establishing frequent breaks along with rules and guidelines, and finding other recreational activities to participate in.

Annotated Bibliography

Benedict, Carey. "How does Screen Time Affect Young Minds? Jury is Out." *The New York Times*, 11 Dec 2018. sirsissuesresearcher, <https://explore.proquest.com/sirsissuesresearcher/document/2266171101?accountid=338>.

A generation ago, parents were worried about excessive TV time, and now the concern is screen time. It explains how screen time changes the brain and psychologists studies. Screen addiction is also discussed with its effects on the brain.

Garcia, Debra M. *From Screen to Green: The Effect of Screen Time and Setting on Pre-Adolescent Children's Executive Function Skills*, California State University, Los Angeles, Ann Arbor, 2015. *ProQuest*, <https://search.proquest.com/docview/1730285169?accountid=338>.

The source explains the main concerning health effects of screen time and focuses mainly on pre-adolescent children. It covers procedures and studies that have been done on its effects and the slowing of development as a whole.

Lissak, Gadi. "The Effects of Screen Time on Health." *Netivei Reshet*, 5 Apr. 2016, <https://www.netivei-reshet.org/en/node/76>.

This source explains the many negative effects of excessive screen time use including neurological effects, effects on the endocrine system and the many hormones within, the cardio-vascular system, obesity, posture and vision. It provides solutions and recommendations as well as reasoning to why these will help.

Park, Alice. "Too Much Screen Time Can Have Lasting Consequences for Young Children's Brains." *Time*, Time, 28 Jan. 2019, <https://time.com/5514539/screen-time-children-brain/>.

Alice Park describes the negative effects of screen time on children's development along with issues of memory, attention, and language skills. She gives recommended time for screen use without negative effects and explanations of multiple studies.