

Children, ergonomics and screens

For the next few weeks at least, school will become digital. Children and teenagers will therefore spend more time on screen, in a context where an other epidemic has become invisible: studies show that 50% of the teenagers (10-19 y.o.) and 70% of university students already have neck pain. These worrying results demonstrate that you can feel muscle and joint pain whereas, strictly speaking, you do not have a professional life yet.

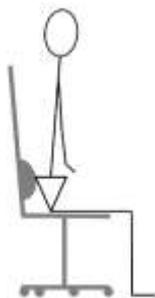
To protect you and your children, this document aims at guiding teachers and parents in how to better use screens at home.

1 Posture and ergonomics

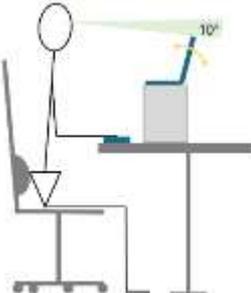
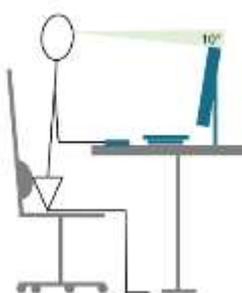
To make sure that you have a good sitting posture, observe the following:

- the pelvis should be stabilized to protect the spine;
- the neck and the upper extremities should do as little as possible.

Stabilizing the pelvis in a neutral posture (i.e. on the sitting bones) requires a lumbar support placed at belt level, as shown below. If you do not have an office chair, use a lumbar cushion¹.



To make sure that your neck and arms stay relaxed, the keyboard and the mouse need to be placed where your fingers naturally are when your elbows fall loosely alongside your torso. The top of the screen will be around 10° below the line of sight. If you work on a laptop, use a split keyboard and mouse, and place a few books under the laptop (i.e. use it as a mere screen).

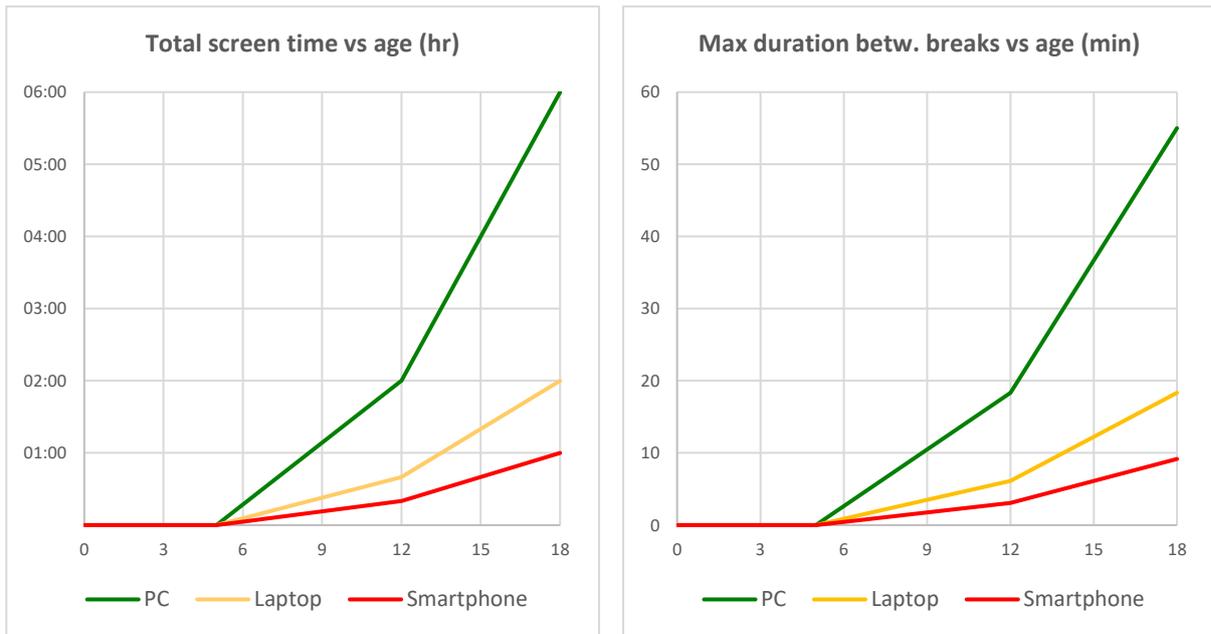


If the desk is too high, raise your chair and place a few books under your feet.

¹ To be purchased online: <https://www.ergoh-conseil.ch/ergonomics-online-shop.html>

2 Duration and breaks

The graph below shows the daily limits for screen use depending on the age and the type of screen. According to the green line, your 12-year old child can use a desktop up to 2 hrs per day. If he works on a laptop only (i.e. without a split keyboard and mouse: yellow line), the daily limit is 40 min. If he uses a smartphone only (red line), it is 20 min. Of course, these « daily credits » are not cumulative: if he uses a desktop for 1hr per day, his smartphone credit is only 10 min...



Furthermore, your child will have to take regular breaks. At the age of 12, he shall not spend more than 18 min (say 20) in a row on a desktop. On his smartphone, this limit goes down to 3 min!

3 Moving

Closing schools does not mean that children do not need to move anymore. In this regard, frequency matters more than duration: the Saturday soccer game does not replace the multiple daily opportunities to move for shorter periods of time.

This framework is even more important when working behind a screen. This relaxation exercise can be carried out many times a day. Adults and children find it both amusing and particularly effective: <https://www.youtube.com/watch?v=yxIkf36TRD4>

4 Conclusion

Here is my advice for the weeks to come (and the following ones!):

- do not give bad habits to your child. In particular, do not let him use mobile devices from the couch or the bed (be determined and exemplar);
- buy at least a lumbar cushion, and a split keyboard and mouse;
- take frequent rather than long breaks;
- for every activity, be inventive and find alternatives to being on screen.