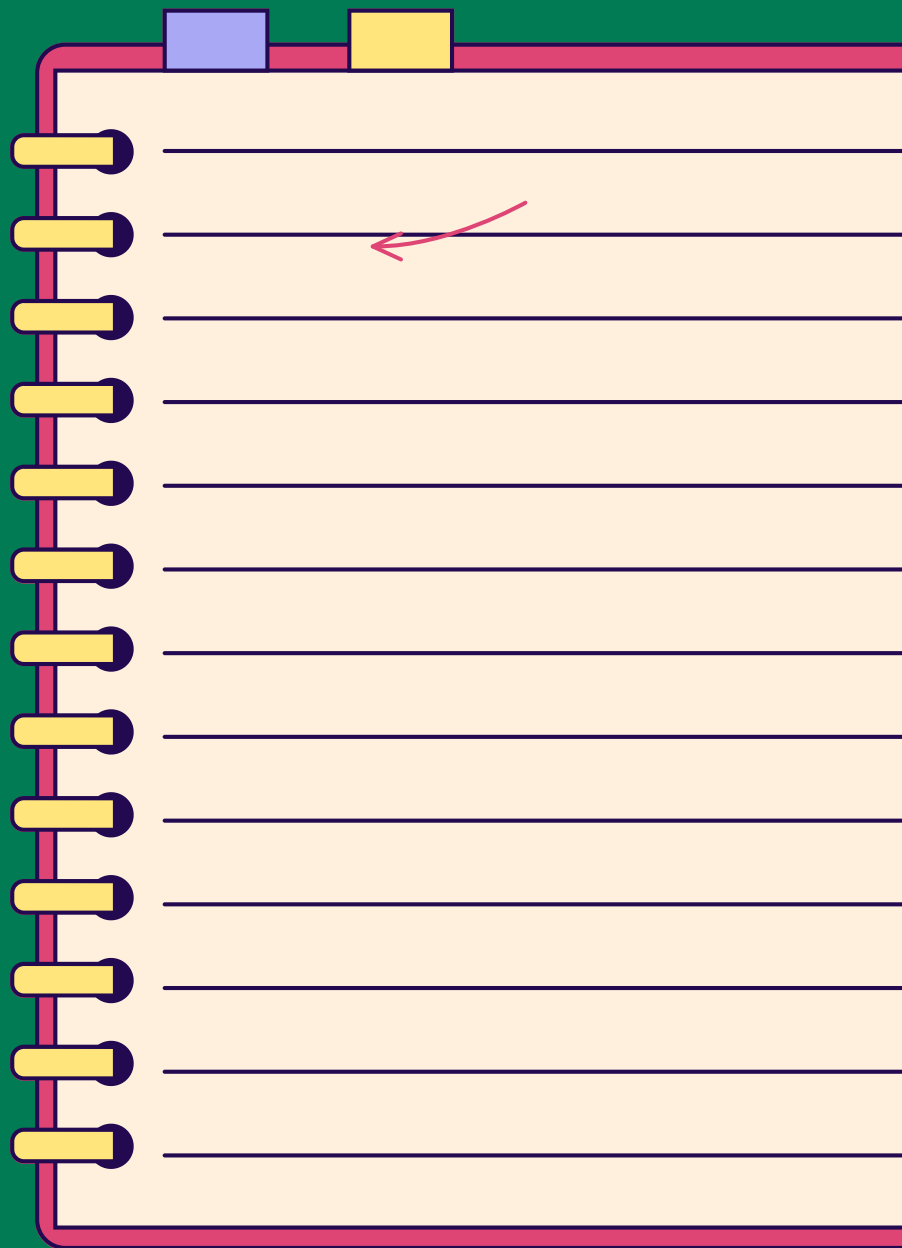


MODULE 13 - DIGITAL TECHNOLOGY & HEALTH

CHAPTER 2

SCREENS



INTRODUCTION

Did you know? The average screen time of a French adult is 4.5 hours per day! Considering the multitude of screens at our disposal, such as television, tablet, computer and smartphone.

Overconsumption of screens can have an impact on:

- **Our sleep:** blue light prevents the secretion of melatonin, a hormone that induces sleep, by sending the brain a signal that it is still daytime
- **Our health:** the increase of time spent in front of screens has the direct consequence of a sedentary lifestyle and a reduction in physical activity
- **Our social relationships:** people considered hyper-connected tend to withdraw into themselves, lose interest in real life, in everything outside of screens and therefore disengage from relationships with their loved ones.
- **Our concentration:** the rapid images that scroll across screens cause hyperstimulation which is detrimental to the development of attentional capacities.

1 PROTECTING YOUR HEALTH WHEN USING SCREENS

The main risk associated with excessive screen use is to cut yourself off from the real world, so one way to prevent it is to find the right balance between connection and disconnection times.

There are various useful actions to adopt a more moderate use of screens:

1 SCREEN TIME MANAGEMENT:

- Choose programs that you really want to watch without getting caught up in the TV stream, and turn off the TV when the program is over.
- Limit unnecessary connection times and set realistic goals for the day: for example, avoid connecting for more than 20 minutes at a time.
- Log off an hour before bed



2 LIMIT THE USE OF MULTIPLE SCREENS:

Avoid using multiple screens at the same time, as this can lead to mental overload.



3 PROMOTE NON-SCREEN ACTIVITIES:

Schedule phone-free time during the day by spending time with friends, family, playing sports, reading, etc.

4 DISABLE NOTIFICATIONS:

To avoid alerts that are too frequent and invade your daily life, it is sometimes useful to deactivate notifications at certain times. This can allow you to better concentrate, gain in efficiency and enjoy the present moment.



2 THE CONSEQUENCES OF EXCESSIVE SCREEN USE

PSYCHOLOGICAL AND SOCIAL IMPACT

Screens can create **physical distancing**: hyper-connected people tend to withdraw into themselves, cut themselves off from reality and take refuge in the virtual world, lose interest in everything outside of screens and disengage from relationships with their loved ones.

While they have an impact on the social level, screens can also have **negative consequences on mental health**, particularly when a person uses screens excessively. In the case of overconsumption, distancing themselves from screens can generate **sadness, a feeling of emptiness, anxiety**, or even a feeling of uneasiness in the hyper-connected individual that can lead to aggressive behavior.

Excessive screen time may also have an **impact on stress, mood disorders and hyperactivity**.



2 THE CONSEQUENCES OF EXCESSIVE SCREEN USE

ADVERSE HEALTH EFFECTS

Excessive and uncontrollable use of screens can also have a **major impact on health**, leading to various problems:

- **prolonged poor postures** that can be a source of pain or even trigger musculoskeletal disorders (MSDs) which mainly affect the muscles and tendons of the lumbar region, neck, shoulders, wrists and hands. It is estimated that 5% of MSDs in France are due to working on a screen;
- **dietary imbalances** that can ultimately lead to the development of weight loss problems, excess weight or obesity;
- **a lack of physical activity** which, combined with an unbalanced diet, significantly increases cardiovascular risk;
- **sleep disorders:** nighttime activities on screens can in fact encroach on sleep time, which can ultimately disrupt the biological rhythm and generate exhaustion and chronic fatigue. Similarly, the blue light emitted by screens blocks the sleep hormone and stimulates wakefulness;
- **visual fatigue,**
- **headaches, etc.**



2 THE CONSEQUENCES OF EXCESSIVE SCREEN USE

SCREENS AND SEDENTARY LIFESTYLE

Sedentary lifestyles, which correspond to situations spent in a sitting or lying position (apart from sleeping and eating), are constantly increasing, particularly among the female population.

This high level of sedentary lifestyle is linked to significant use of screens: in 2006, outside of professional activity, the adult population reported spending an average of **3 hours and 10 minutes per day in front of a screen, compared to 5 hours and 7 minutes in 2015, an increase of +53%.**

However, it is now well established that a **sedentary lifestyle is detrimental to health and life expectancy.** It is one of the 10 risk factors for mortality worldwide. It is a risk factor for diseases such as cardiovascular disease, cancer and diabetes.



2 THE CONSEQUENCES OF EXCESSIVE SCREEN USE

EFFECTS ON SLEEP

As recent studies show, we are sleeping less and less.

Computers, television, tablets, smartphones occupy an increasingly important place in our lives and in our evenings, to the detriment of our sleep.

According to the INSV/MGEN 2019 “Lifestyles and Sleep” Survey, **44% of French people surf the Internet or social networks and 44% watch television in bed in the evening before going to sleep.** However, this habit increases the risk of being drowsy during the day or suffering from sleep disorders.

As a matter of fact, the negative impact of screens on sleep is now well established:

- The blue light emitted by screens helps to block the production of melatonin and thus promotes wakefulness, even at low levels of exposure;
- Screen activities keep our brain in a state of intellectual excitement that is not conducive to falling asleep.



2 THE CONSEQUENCES OF EXCESSIVE SCREEN USE

DRIVING RISKS

Using a mobile phone at the wheel has multiple consequences on the driving and safety of motorists and other road users. None of them should be underestimated:

- Increased reaction time.
- Increased braking time.
- Reduction of the safety distance.
- Difficulty keeping the vehicle in the lane.
- Difficulty maintaining an appropriate speed.
- Reduced field of vision.
- Difficulty safely integrating into the flow of traffic.
- Provocation of stress, tension and even frustration.

DID YOU KNOW? The smartphone is the only device that combines all four sources of distraction that can distract a driver!

1. **Visual distraction:** the driver takes their eyes off the road;
2. **Cognitive distraction:** the driver focuses on the conversation or what they are reading rather than on the road and driving;
3. **Auditory distraction:** the driver is no longer attentive to external noises which could warn them of a possible danger;
4. **Physical distraction:** the driver no longer holds the steering wheel with both hands when dialing a number, sending a message or holding the phone in their hand.