# Welcome to If's training in General Employee Safety!

This training will provide an overview of safety and risks at work, as well as commuting and work-related travel.

This course consists of four chapters:

1. Introduction
2. Hazards & risks at work
3. Commuting safety
4. Travel safety
5. Introduction

There is a lot more to a workday than just the actual work itself. A typical day also includes some time at home, traveling from home to the workplace, as well as some leisure activities.

Throughout the day we face risks. Many of them are familiar to us - sometimes so familiar that we do not even recognize them. Did you know that the home is a common scene for accidents? We tend to neglect or underestimate risks existing in an environment that is so familiar to us. As an example, slipping in the shower can happen at any time, in any home.

In this training we will take a look at the concept of hazard and risk on a general level. We will also provide an overview about the common risks at work, in traffic and when traveling. After this training, you will have an understanding of these risks and learn how to identify and avoid them.

1. Hazards & risks at work
	1. What is a hazard?

A hazard is commonly defined as something that can potentially cause harm, such as injury or illness. Examples of hazards are sharp or hot objects, oil spilled on the ground, or exposure to harmful chemicals. In this example, a person handles a chemical, which has the potential to cause harm. As long as we store and use it safely, it will not cause any harmful consequences. Also, for example in traffic, speeding creates a common hazard, raising the potential to have an accident significantly.

Some common hazards in the workplaces:

* Slippery surfaces lead to numerous accidents each year. Typical causes are icy surfaces, chemical spills and slippery surface materials.
* Sharp tools or materials are a common cause for hand accidents.
* Hot surfaces are a risk within many different workplaces, such as restaurants, factories, mechanical workshops and vehicle repair workshops.
* Repetitive movement, heavy manual lifting and poor working posture are common hazards stemming from poor ergonomics.
* You can be exposed to extreme heat or cold working conditions, depending upon whether you are working indoors or outdoors.
* Harmful substances can cause various health issues, even in small amounts or through infrequent exposure.
	1. Why does it matter?

Hazards can have diverse effects: some of them can cause an immediate danger, while others cause harm over a longer period of time. It's also good to note, that the effects can be psychological or physiological. Immediate adverse effects can be, for example cuts, bruises or bone fractures. Respectively, health issues can appear over a longer period of time. For example, some common muscular-skeletal issues can result from continuous, repetitive movements. In a similar way, exposure to harmful chemicals can cause various health effects immediately, or over a long period of time.

Although it may be easy to imagine the cause of an injury, a major part of risks relate to cognitive and psycho-social factors, as illustrated in the list below. In order to identify the hazards relating to your work tasks and working environment, it is important to understand these thoroughly. Some novel risks have emerged during the past years, due to changes in the way we work. Sitting for long periods of time is an example of a factor, that just recently has been identified as a major health hazard.

List: In 2019, the most common risk factors in the European workplaces were:

* Repetitive hand or arm movements
* Having to deal with difficult customers, patients, pupils etc.
* Prolonged sitting
* Lifting or moving people or heavy loads
* Risk of accidents with machines or hand tools
* Time pressure
* Risk of accidents with vehicles in the course of work
* Chemical or biological substances
* Heat, cold or draught
* Increased risk of slips, trips and falls
* Loud noise
* Long or irregular working hours
* Poor communication or cooperation within the organization

(Source: European Agency for Safety and Health at Work, 2020)

Did you know?

In comparison to general European statistics, time pressure is the most frequently reported risk factor in Denmark, Finland and Sweden. Time pressure can have serious direct and indirect consequences, such as psychological stress, lowered alertness and risk-taking at work, for example.

(Source: European Agency for Safety and Health at Work, 2020)

* 1. Risk: a combination of probability and severity

Risk is, by definition, the outcome of the probability of occurrence and the severity of consequences, referred often to as impact. Thus, risk describes how probable it is that a harmful consequence will occur and how severe the possible consequences are.

The severity of a risk can be easily assessed with a simple 3x3 matrix, where the columns mark the probability with low, medium or high. In a similar way the rows are for impact with low, medium and high. For example, if the probability of an accident is low, but the consequences are high in severity, the impact of the risk is medium. Using this kind of an assessment makes it easier to understand, which harmful events require urgent action or mitigation.

Keep in mind that working safely starts with identification of the hazards around you. Hazards can also be "hidden" in unsafe working methods or insufficient supervision of safe working methods, leading to a poor safety culture. Thus, it is important to maintain a proactive view and aim to identify even those hazards that are not obvious.

* 1. Risk perception

In respect of hazard identification, it is good to note that our own risk perception varies greatly between different risks. This also applies between individuals. Objectivity is a good target when assessing risks, but in practice it can be hard to reach: risk assessment is often more or less subjective.

We overestimate the risks that we don't know very well, and underestimate those that are familiar to us. Also, risks that can have immediate undesirable consequences are often perceived to be more serious, in comparison to those with more abstract or distant effects. Effectively, we are willing to accept higher risks, if we take them voluntarily. While we tend to condemn less serious risks that we cannot avoid. To clarify, the injury risks relating to downhill skiing are accepted by those who like to ski.

The perception of risks can partly explain, why we may take more risks in familiar environments, such as at home, while we tend to perceive the risk of a nuclear accident to be much higher than the risks caused by unhealthy lifestyle.

Did you know?

Risk perception is highly subjective. As an example, it is equally risky to smoke 1,4 cigarettes (in total), as it is to live at 20 miles from a nuclear power plant for 150 years. Which one worries you more?

(Source: Hollnagel, E. (2014) Safety-I & Safety-II - The past and future of Safety Management)

* 1. Reduction of risks

Generally, risk assessment and management is an employer's duty, but is our own responsibility to make sure we work safely. This includes the following common safety instructions at work, just as we all need to follow traffic rules while driving.

We can reduce the probability of a risk occurring or the severity of its consequences. In the best case, we can identify measures that will reduce both of these.

It is good to note, that following safety instructions is of vital importance in reducing personal exposure to risks. Also, we need to maintain a proactive approach towards hazard identification in order to be able to avoid hazards in our everyday activities.

Safety rules need to be followed throughout any task. It is good to note, that in some operating environments, the other on-going tasks can cause risks that we need to be aware of. A common example relates to forklifts, that move quickly and silently through warehouses.

In these cases, employees working in the warehouse face great risks. Therefore, it is important to be alert at all times - both forklift drivers and warehouse workers need to understand this hazard.

Let's take a second look at the common risks we considered earlier.

* + 1. Learn how we can reduce these risks
* Slips, trips and falls can be prevented with regular cleaning intervals. Any spills and trash should be removed quickly.
* Use of safety gloves can help to prevent injuries caused by sharp objects. Safe working methods are also of great importance.
* Adhering to safe working practices and using appropriate protective clothing are the most effective ways to prevent burn injuries.
* Use lifting aids, alternate your working postures to avoid excessive physical stress. Take sufficient breaks and stretch your muscles at regular intervals.
* Clothing, personal protective equipment and regular breaks will help you manage the risks associated with working in hot/cold environments.
* Chemicals need to be stored appropriately with clear markings on the packages. Know the risks of each chemical and use personal protective equipment.
	1. Take care of yourself

Our own performance varies by nature: for example our alertness levels change throughout the day. We can maintain our alertness with sufficient rest and recovery, and good nutrition. There should be some recovering breaks also during the workday.

Note that what happens outside of work can influence our performance in the workplace. We make less mistakes and are more careful, if we have recovered sufficiently. Similarly, poor recovery during off-hours will deteriorate our alertness at work and in traffic.

* 1. Let's close this chapter with a question!

How can you improve your safety at work? One of the following statements is not true – which one?

1. By following safety rules at all times
2. By maintaining own well-being with sufficient recovery and good nutrition
3. By understanding that accidents only happen in the morning
4. By identifying hazards before I start a new task

The answer to the question is:

 Number three is wrong - accidents can happen any time of the day.

1. Commuting safety

Travelling between home and work is often the riskiest part of your workday.

* 1. Safety starts at home

Commuting refers to travel between home and the workplace. Weather conditions, including the amount of daylight, influences both the severity and the probability of traffic risks. In addition to checking the current weather conditions, it is also important to check the weather forecasts to make your commute safer. Sometimes this can mean changing your route, mode of transportation or even deciding to work remotely. At the minimum, poor weather will require you to reserve more time for your daily commute.

It is important to follow traffic safety rules at all times. Keep in mind, that irrespective of the mode of transportation, using mobile devices will severely lower your alertness in traffic, creating a significant risk of accident. This applies also to devices that are aiming to help us, such as navigators and speech-controlled hands free -equipment.

Did you know?

When driving, a two-second glance at your device doubles the risk of an accident.

A study found that, on average, it takes 86 seconds to enter a full address correctly to a GPS device using a touch screen.

(Sources: Finnish Road Safety Council, 2019 & Hallinan, J.T. (2009) Why we make mistakes)

* 1. How do you commute?

There are different risks affiliated to all different modes of transportation. Luckily there are ways to manage the risks.

Avoiding time pressure is of focal importance in all modes of commuting. Also avoid "multitasking" in traffic, as this is a major accident risk. It is impossible for the brain to truly focus on two things at the same time. This applies also to the use of headphones and mobile devices - they will cause distractions, even for pedestrians.

Keep your eyes and mind on the road, especially if your are driving or biking. Commuting by biking or walking is a great way to promote our well-being. In urban areas they can also help you to avoid traffic jams.

In the following we will uncover more information about risks and ways to manage them.

* + 1. Walking

Irrespective the mode of transportation, we will most likely walk at some point on our way to work. In the Nordics, the weather conditions vary a lot throughout the year, so does the amount of daylight. Snowy and icy surfaces, as well as darkness, increase the risks affiliated with walking.

You can improve your safety by choosing shoes that are appropriate for the prevailing weather conditions. Soles with sufficient grip or overshoes with spikes are a good option on icy and snowy surfaces. Good physical health, including the ability to retain your balance, can also help avoid slips, trips and falls.

Just like with all modes of transportation, also pedestrians need to stay alert and follow traffic safety rules. Along with good shoes, make sure that you are visible for the other road users, especially in the dark. Wearing a reflector will help others see you.

* + 1. Biking

Biking is a popular and convenient mode of transportation, especially in urban areas. Yet, there are various factors that can have negative impacts on biking safety:

* speed, especially when it's combined with a cyclists' poor visibility to other road users,
* difficulty in predicting the actions of other road users (such as drivers and pedestrians), especially on shared lanes
* poor visibility due to buildings, parked vehicles, vegetation, etc.
* factors relating to road maintenance, including unevenness of road surface
* omitting the use of a biking helmet

When biking, making yourself visible and ensuring your own alertness to observe the environment around you can improve your safety significantly. A biking helmet alone does not prevent an accident from happening, but it does protect your head in case of an accident. Not using a helmet is a major factor increasing the risk of a serious injury.

Keep in mind that a bike is not only fast, but sometimes very difficult to observe from a car, bus or truck. Improving your own visibility with brightly-colored clothing, lights and reflectors can significantly improve your safety. Adapting your speed in accordance with the surrounding environment is an efficient way to ensure that you have enough time to react when needed.

Publicly available city-bikes and scooters are a novel type of transportation in many Nordic cities. The risks affiliated with them can be higher e.g. due to higher speeds and the lack of helmets.

According to accident statistics, head injuries are a surprisingly common consequence from biking accidents, whereas scooter accidents often lead to different kinds of facial injuries.

* + 1. Driving

Many risks affiliated with driving are actually decisions that we make, consciously or unconsciously.

A common factor behind traffic accidents are distractions. These can be

* Visual: things that make drivers look away from or at irrelevant aspects of the road/traffic
* Cognitive: things that make the driver think about something other than the driving task
* Manual: things that make drivers take their hands off the wheel or carry out tasks that are not related to driving.

Another common factor behind traffic accidents is time pressure, which can lead to e.g. risk-taking.

Have you ever accelerated at the sight of a yellow light?

Be aware of your own fitness to drive. Alcohol and different medications can seriously decrease alertness and reaction times, also on the following day. The same applies to impaired health conditions, such as ordinary illnesses and sleeping disorders.

Making truthful observations about your own health condition, including alertness and your ability to drive safely is of focal importance. Finally, while our driving experience increases, our age lengthens our recovery time between tasks. It also slows our reaction times and narrows the visual fields.

* + 1. Public transportation

Modes of public transportation are, for example, buses, subways, trams and trains. The risks relating to public transportation are mainly slips and falls, occurring when walking to or from the bus stop or train station. A common accident is also falling inside a bus, tram or train. These can happen as a result of a sudden movement of the vehicle.

In the wintertime, icy or wet floors can cause slipping, especially if a passenger is standing when the vehicle moves unexpectedly. In order to improve your safety, make sure that your shoes provide a sufficient grip and that you are firmly seated or hold onto railing. Again, alertness will provide added safety.

Did you know?

When using public transportation, walking to and from the bus stop or train station is the riskiest part of your commute.

Keep the following points in mind to improve your safety in traffic:

* Time pressure can lead to risk-taking
* Don't drive according to yesterday's weather. Check the current weather conditions and the forecasts to be prepared.
* Be aware and stay alert: mobile devices and headphones can disturb your alertness significantly, even as a pedestrian.
* Make yourself visible: whenever in traffic, make sure that other road users can observe you. Use a reflector during dark time of the year.
* As a car driver or cyclist, be prepared for road users that are hard to see.
* A journey always includes some walking, irrespective of the mode of transportation used. Be weatherproof and choose shoes that help you to retain your balance at all times.

Let’s close with a question on ways to improve our safety in traffic.

Do you agree on all of the following statements?

1. Check the current weather condition and the weather forecast
2. Reserve time to avoid time pressure
3. When driving a car, observe your alertness and health truthfully
4. Minimise distractions when you drive a car
5. With all modes of transportation, be especially aware if visibility is impaired (e.g. due to parked vehicles, buildings, darkness...)
6. Travel safety

We are traveling more than ever, both in business and in our private lives. However, traveling always includes risks. It is important to understand different risks whenever your travel.

Travel-related risks and threats are changing all the time. Also new risks emerge, every now and then. There are also big differences between destinations. This means, that we as travelers need continuous updates regarding the current risks in our next destination. We also need to be prepared in case something unexpected happens.

Some core points to be considered before, during and after your trip:

* Explore the risks before the journey. Take some time to study what are the common risks at the destination. Have new risks emerged recently?
* Travel only when you feel healthy and fit. Consult your health care provider in case you have any concerns on your health and well-being.
* At the destination, exercise caution and maintain your health and well-being.
* Be mindful of your surroundings and use common sense. Respect local cultures and habits.
* Share your experiences with friends and colleagues.
* Seek medical assistance in case you have any concerns after the trip.

The training ends here. Thank you for participating in this training!