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INTERNATIONAL GENERAL CERTIFICATE IN OCCUPATIONAL HEALTH AND SAFETY

Element 5: Physical and psychological health

SCOPE OF LEARNING

5.1 NOISE
5.2 VIBRATION
5.3 RADIATION
5.4 MENTAL ILL-HEALTH
5.5 VIOLENCE AT WORK
5.6 SUBSTANCE ABUSE AT WORK

5.1 NOISE

LEARNING OUTCOMES

- The physical and psychological effects of exposure to noise
- The meaning of commonly used terms: sound pressure, intensity, frequency, the decibel scale, dB(A) and dB(C)
- When exposure should be assessed; comparison of measurements to exposure limits established by recognised standards
- Basic noise control measures, including: isolation, absorption, insulation, damping and silencing; the purpose, use and limitations of personal hearing protection (types, selection, use, maintenance and attenuation factors)
- Role of health surveillance.

THE PHYSICAL AND PSYCHOLOGICAL EFFECTS OF EXPOSURE TO NOISE

The most common physical effects from Noise are as follows-

1. Temporary threshold shift is a change in the threshold of hearing that only lasts for a short time. It can happen suddenly after being exposed to a lot of noise, which makes most people's hearing worse. Temporary hearing loss happens when the threshold shifts.
2. Noise-Induced Hearing Loss (NIHL): Noise-induced hearing loss is a permanent change in pure-tone thresholds, which leads to sensorineural hearing loss. How bad a threshold shift is depends on how long and how loud you were exposed to noise. It causes permanent hearing loss, either in part or in full.
3. Tinnitus, an auditory ailment, is the experience of a noise (ringing, chirping, buzzing, etc.) in one's ear even when no external source of that noise is present. Tinnitus can be experienced in two ways: subjectively and objectively. The most prevalent type is subjective, which can only be heard "in the head" of the individual experiencing it. Objective tinnitus is audible to the affected person's environment and the audiologist through the use of a stethoscope.

THE PHYSICAL AND PSYCHOLOGICAL EFFECTS OF EXPOSURE TO NOISE

Psychological effects include-

1. Stress has effects on the mind, such as irritation, psychiatric disorders, and psychosocial well-being.
2. Anxiety and depression: Depression and anxiety are also mental health problems that can be caused by noise. Hearing aids can help people with hearing loss, including hearing loss caused by noise.
3. Can't concentrate

GLOSSARY OF TERMS

Frequency- Frequency is the number of times something happens in one second. It is measured in Hertz (Hz). For sounds, this is what people call pitch.

Decibel- It is estimated that 2 x 105 Pascals (Pa) to 200Pa is the audible sound pressure range. The range is simplified to zero decibels (dB) to one hundred forty decibels (dB) when expressed in dB notation.

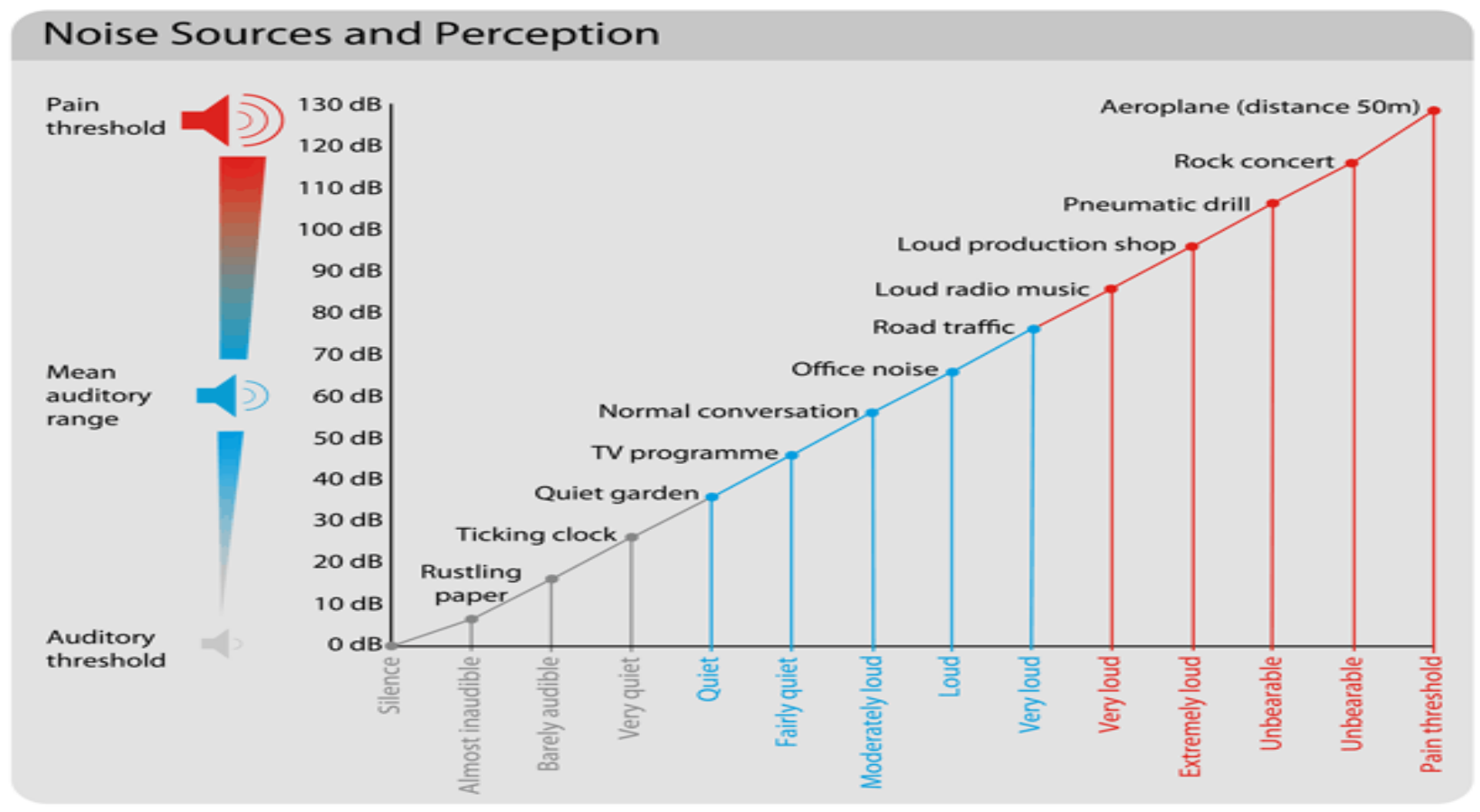
A-Weighting- The human ear doesn't react the same way to all frequencies. Most of the time, A-weighting is used to imitate how the ear responds to different frequencies. It is used to figure out how likely it is that noise will damage your hearing. It is usually written with a capital A in the unit abbreviation (e.g., LAmax, LAeq, etc.) or in brackets after a dB level (e.g., 3dB(A)).

GLOSSARY OF TERMS

C-Weighting- A common filter that changes the levels of a frequency spectrum in the same way that the human ear does when it hears loud or sudden noises. Most of the time, this weighting is used to judge how something sounds.

Noise Dose- A worker's total average time-weighted exposure to noise over an 8-hour work day. This is shown as a percentage of the total amount of noise that can be heard. A noise dosimeter can be used to measure noise dose if the worker is exposed to different noise levels at different times of the day. Without a dosimeter, it can be hard to figure out the overall noise dose for different noise levels because you can't just average the decibel levels. (A logarithmic scale is used to measure noise levels.) Not everyone agrees on the amount of noise that is safe.

NOISE LEVELS



NOISE EXPOSURE LEVELS

- Why measure Noise at the Workplace?
- How is workplace Noise measured?
- How do you identify noise problems in the workplace?
- What things do you consider when planning noise measurement?
- What types of instruments are used for measuring noise?
- What is a noise dosimeter?

WHAT IS A NOISE DOSIMETER?

A noise dosimeter is a small, light device that the worker wears with the microphone close to their ear, just above the edge of their shoulder. The noise level information is stored in the dosimeter, which also does an averaging process. It is useful in industries where noise changes in length and volume and where people move around a lot.

NOISE ACTION LEVELS

Lower exposure action values:

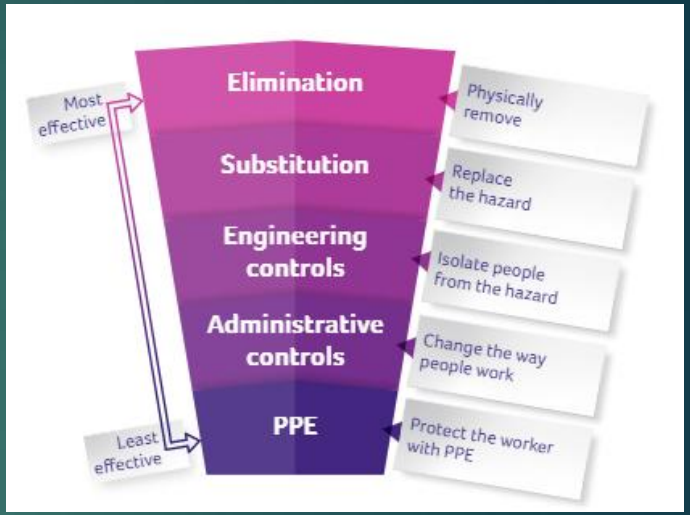
- Daily or weekly exposure of 80 dB(A)
- Peak sound pressure of 135 dB(C)

Upper exposure action values:

- Daily or weekly exposure of 85 dB(A)
- Peak sound pressure of 137 dB(C)

NOISE CONTROL MEASURES

- Elimination
- Substitution
- Engineering controls
- Administrative controls
- Personal protective equipment



ELIMINATION

Elimination is the best way to keep workers from getting hurt because it gets rid of the noise where it comes from. This isn't always possible, but some ways to do it would be to stop hard objects or surfaces from hitting each other or to move noisy work away from other tasks.

To cut down on nose at work, it's important to plan and implement a good buying or renting policy. The most cost-effective and long-term way for a business to lower noise levels is to think early on about how a new work process or piece of equipment would work without making the workers too loud. Before buying new machinery, you should think about how loud it is. You can do this by talking to the manufacturer or supplier of the plant or machinery and getting information from them. This could include how to set up the machine, how to take care of it, and how loud it is likely to be in the conditions where it will be used. Note: Noise levels should always be taken into account when introducing a new work process, choosing new work equipment, or arranging the workstations.

SUBSTITUTION

Substitution is the process of replacing loud machines or tools with ones that aren't as loud. When it's not possible to get rid of the noise-making machinery or equipment, replacing it with quieter ones may be the next best thing to do. Organizations should always think of different tools and ways of doing work that would make the job less noisy.

Changing the way a job is done can protect the workers by making less noise. For example, using hydraulics to bend materials makes less noise than hammering.

When welding is used instead of riveting, for example, a risk assessment must be done to make sure that it doesn't introduce a new type of risk.

ENGINEERING CONTROLS

- putting up walls between the noisy area and other workspaces (e.g. sound proof control rooms)
- a place to put loud machinery (boxing it in or placing in an enclosed space)
- using plastic bumpers to keep metal from touching metal
- Using absorbent material on surfaces to soften the fall or impact of objects on walls, ceilings, and floors to reduce noise caused by reverberation.
- instead of rollers, conveyor belts are used
- Putting silencers or mufflers on the intake and exhaust systems
- Using rubber mounts to separate a source of vibrational noise from the surface it is attached to
- keeping machinery or its parts running at the best speed
- repairing and replacing loose moving parts, worn bearings, and gears

ADMINISTRATIVE CONTROLS

- establishing designated quiet zones and putting warnings about potential noise
- Putting more space between noisy sources and workers reduces the negative impact of noise on the former.
- arranging work schedules in such a way that loud activities take place when there are few people around
- Reducing the number of people that need to be productive in a busy, noisy space preventing people from hanging around if they aren't needed for work.
- Reducing the number of people that need to be productive in a busy, noisy space preventing people from hanging around if they aren't needed for work.
- providing rest breaks in areas away from a noisy work environment
- supplying workers with adequate information, instructions, and training for the proper use of work equipment
- To keep an eye on the dangers of noise to people's hearing, health officials are keeping tabs.

PERSONAL PROTECTIVE EQUIPMENT

- Ear Plugs
- Ear Defenders/ Ear Muffs

HEALTH SURVEILLANCE

Health surveillance for hearing damage usually means:

- Hearing tests in laboratory conditions on a regular basis;
- letting employees know how their hearing checks went;
- Keeping a record of your health;
- Making sure that employees see a doctor when hearing damage is found. The purpose of health surveillance is to:
- to let you know when your employees might be showing early signs of hearing loss;
- you a chance to do something to stop the damage from getting worse.;
- Check to see if the controls are working. Before you start health surveillance, talk to your union's safety representative, an employee representative, and the workers who will be affected. Your employees need to know that the goal of health surveillance is to protect their hearing.

5.2 VIBRATION

EFFECTS OF EXPOSURE TO VIBRATION

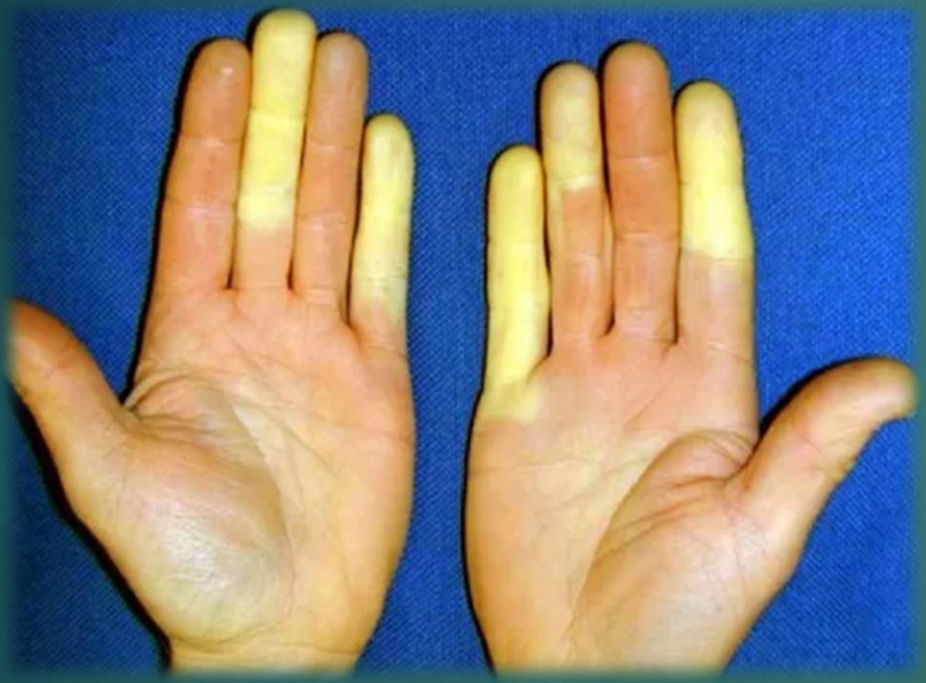
- Hand Arm Vibration (HAV)
- Whole Body Vibration (WBV)

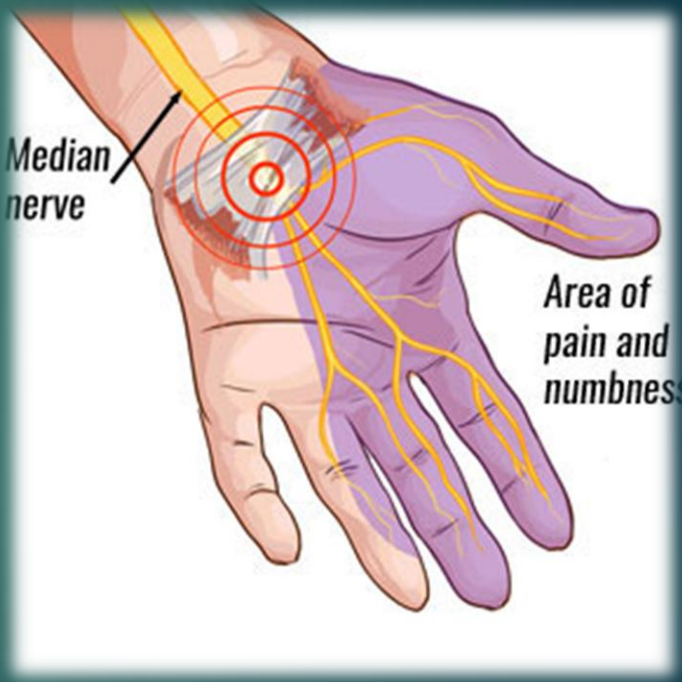
THE EFFECTS ON THE BODY OF EXPOSURE TO HAND–ARM VIBRATION AND WHOLE-BODY VIBRATION

Hand-arm vibration syndrome (HAVS) is a group of health problems that can be caused by long-term, regular exposure to HAV. Some of these problems, like vibration white finger and carpal tunnel syndrome, can be permanent and painful..

HAVS affects the hand, wrist, and arm's nerves, blood vessels, muscles, and joints. If you don't take care of it, it can make you very sick. **Carpal tunnel syndrome** is a disorder of the nerves in the wrist that can cause pain, tingling, numbness, and weakness in the hand and wrist. It can happen on its own, but vibration is one of the things that can cause it. Early signs of a problem include tingling and numbness, not being able to feel things with your fingers, losing strength in your hands, and having white fingers that turn red and hurt when they get cold and wet.

HAND ARM VIBRATION SYNDROME (HAVS)





THE EFFECTS ON THE BODY OF EXPOSURE TO HAND–ARM VIBRATION AND WHOLE-BODY VIBRATION

Whole Body Vibration (WBV)- WBV is caused by machines and vehicles at work that send vibrations up through the seat or down through the feet. It can be caused by driving off-road vehicles, like tractors, over rough surfaces. It can also be caused by excavators digging into hard ground, or by standing close to powerful machines that aren't moving.

Low back pain has been linked to long-term exposure to high levels of WBV. People who are more likely to be sensitive to WBV include workers who are pregnant, people with neck or back problems, young people whose bones and muscles are not fully developed, and people who have just had surgery. Mining, building, and farming are all industries that work with WBV.

The amount of vibration a person is exposed to is measured by how fast the surface they are in contact with is moving. Most of the time, the speed of the surface is measured in metres per second squared (m/s2).

An **accelerometer** is a device that is attached to the surface that is moving and gives an output that is proportional to the acceleration. After the frequency weighting has been used, the average size of the vibration is shown.

TYPICAL VIBRATION MAGNITUDES FOR EQUIPMENT USED AT WORK

For HAV:

Chainsaw:	6 m/s2
Sander:	8 m/s2
Hammer drill:	9 m/s2
Road breaker:	12 m/s2

For **WBV**:

Car:	0.4 m/s2
Lorry:	0.7 m/s2
Tractor:	1.0 m/s2
Quarry dumper:	1.2 m/s2

EXPOSURE LIMIT VALUES AND ACTION VALUES

For hand-arm vibration—
(a) Standardized to an eight-hour reference period, the daily exposure limit value is 5m/s2,
(b) The action value for daily exposure, based on an eight-hour reference period, is 2.5 m/s2.

For whole-body vibration—
(a) 1.15 m/s2 shall be the daily exposure limit value based on an eight-hour reference period,
(b) The daily exposure action value, based on an eight-hour reference period, will be 0.5 m/s2.

VIBRATION CONTROL MEASURES

SUBSTITUTION:

- Consider alternative work practices that prevent or decrease vibration exposure
- Automate or mechanise the work.

VIBRATION CONTROL MEASURES

EQUIPMENT SELECTION:

- Ensure that the equipment selected or assigned for tasks is appropriate and able to perform the work efficiently.
- When feasible, limit the use of high-vibration tools.
- Employ low-vibration equipment whenever possible.

VIBRATION CONTROL MEASURES

MAINTENANCE:

Establish suitable maintenance routines for your equipment to prevent unwanted increases in vibration regularly sharpen and replace items such as chisels and abrasive discs so that equipment is effective and employees' exposure time is kept to a minimum.

VIBRATION CONTROL MEASURES

WORK SCHEDULES:

Minimize the duration of vibration exposure for your staff. Arrange work so that employees are not exposed to vibration for extended, continuous periods — a series of shorter exposures is ideal. If possible, offer Work Rotation.

VIBRATION CONTROL MEASURES

CLOTHING:

When necessary, provide your personnel with protective clothing to keep them warm and dry. This will promote healthy blood flow, which should prevent the development of vibration-related disorders.

Commercially available "anti-vibration" gloves are designed to separate the wearer's hands from the effects of vibration. There are a variety of varieties, but none of them are particularly good at reducing the frequency-weighted vibration associated with the risk of HAVS, and some of them can actually increase the vibration at certain frequencies. It is not possible to evaluate the vibration reduction provided by "anti-vibration" gloves, hence they should not be depended upon to provide protection against vibration. Nonetheless, gloves and other warm clothes can be effective for protecting vibration-exposed personnel from the cold and preserving blood circulation.

VIBRATION CONTROL MEASURES

CLOTHING:

Minimize the duration of vibration exposure for your staff. Arrange work so that employees are not exposed to vibration for extended, continuous periods — a series of shorter exposures is ideal. If possible, offer Work Rotation.

ACTIONS FOR CONTROLLING WBV RISKS

(a) Training and instructing operators and drivers
(b) Selecting appropriate equipment for the job
(c) Keeping machinery and roads in satisfactory condition

ROLE OF HEALTH SURVEILLANCE

The goal of health surveillance is to prevent or swiftly diagnose any disorder associated with exposure to mechanical vibration, and it shall be deemed suitable when: —

(a) An employee's exposure to mechanical vibration is sufficient for a measurable disease or poor health effect to be associated with the exposure,

(b) There is a realistic possibility that the sickness or harm may occur under his or her specific working settings, and

(c) The employee has access to valid, low-risk, tested approaches for detecting symptoms or effects of the condition.

5.3 RADIATION

WHAT IS RADIATION?

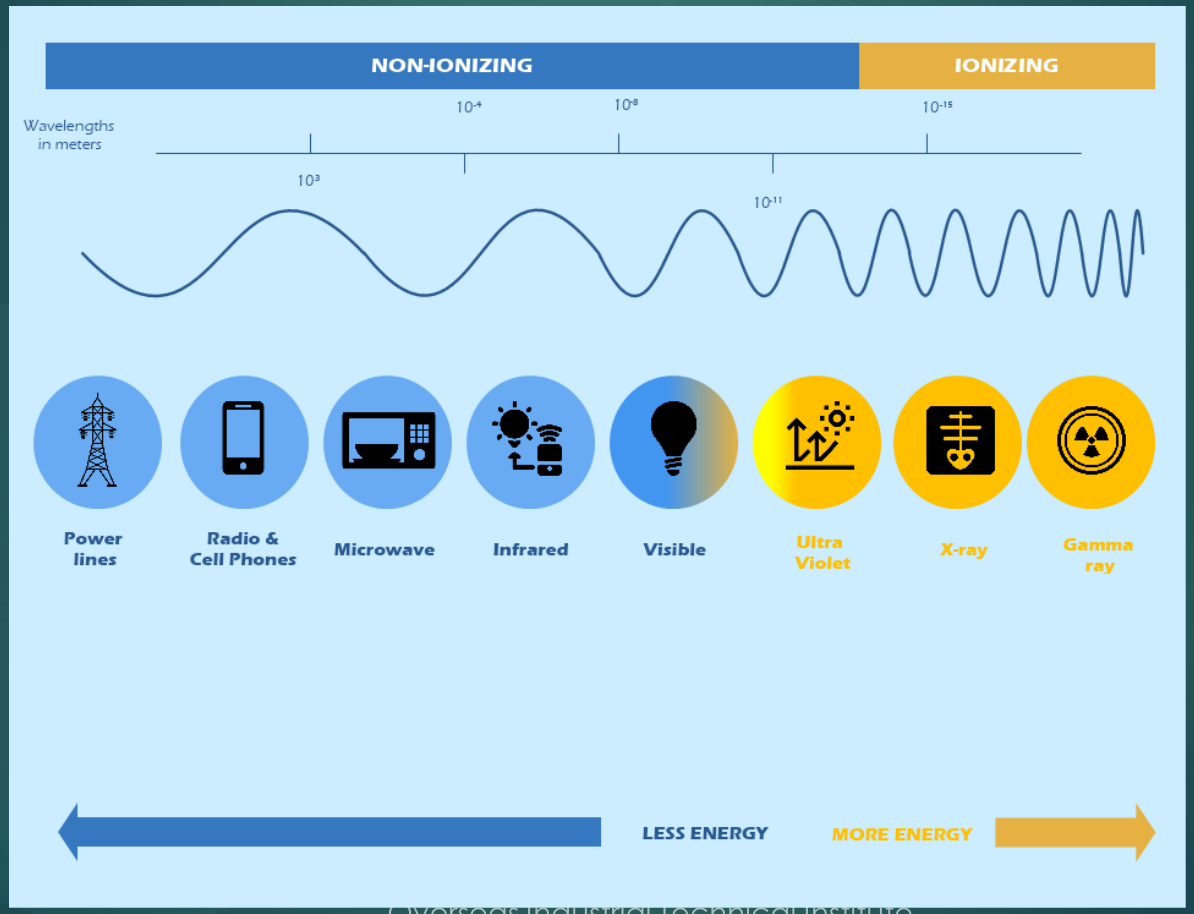
Radiation is the transmission, emission, or absorption of energy in the form of particles or waves.
Radiation exposure can be a serious occupational hazard for a range of workers. Variable effects of radiation on biological tissue.

WHAT IS THE DIFFERENCE BETWEEN IONISING AND NON-IONISING RADIATION?

Ionising radiation: Ionizing radiation has enough energy to make ions in the molecules of matter. If that thing is a human, it can cause a lot of damage, including damage to the DNA and the breaking down of proteins. This doesn't mean that non-ionizing radiation can't hurt people, but it usually only causes thermal damage, like burns.

Non-ionising radiation: Many kinds of radiation, like heat, visible light, microwaves, and radio waves, don't have enough energy to remove electrons from atoms. These kinds of radiation are called "non-ionizing radiation" because they don't do that. In the case of heat, most of the energy is sent at infra-red wavelengths when an object is at room temperature. Ultraviolet light and lasers may still hurt your health if you are exposed to them.

WHAT IS THE DIFFERENCE BETWEEN IONISING AND NON-IONISING RADIATION?



TYPES OF NON-IONIZING RADIATION AND THEIR HEALTH EFFECTS

1. Radio Frequencies
2. Microwave Frequencies
3. Lasers
4. Infrared
5. Ultraviolet

RADIOFREQUENCY AND MICROWAVE FREQUENCY EXPOSURES

Occupational Exposures Equipment for radar and communication, industrial and commercial ovens.

Other Exposures

Cell Phones

Clinical Effects

There is a lot of disagreement about possible cancer risks, especially when it comes to cell phone use. We know that radio and microwave frequency sources can cause burns, and this is what is most likely to happen in a clinical setting.

LASER (LIGHT AMPLIFICATION BY STIMULATED EMISSION OF RADIATION)

Laser effects on the eye

The eye of an unprotected person is very sensitive to laser radiation, and direct or reflected beams can cause permanent damage.

Due to the way tissue works, the wavelength of the laser beam that hits the eye determines what part of the eye is hurt. Most eye damage happens to the retina, cornea, and lens.

- **Retina:** The retina can be hurt by laser light in the visible to near-infrared range. The "retinal hazard region" is another name for these wavelengths.
  - **Laser light** that is visible and near-infrared (400–1400 nanometers or nm) is very dangerous to the retina. Infrared A is sent from the cornea to the lens of the eye, which focuses it on the retina. This makes the laser's light up to 100,000 times stronger. Since the tissue structures of the retina can't be fixed, damage from visible or near-infrared light that is focused on the retina may be permanent. The macula and fovea in the centre of the retina are the most important parts.
- **Cornea and lens**: Laser light in the ultraviolet or far-infrared spectrum can damage the cornea or the lens.

Laser effects on the skin

The most common type of damage to the skin caused by a laser is a burn. Thermal damage is usually caused by lasers that have exposure times longer than 10 microseconds and work in the near-ultraviolet to far-infrared wavelength range.

INFRARED

Common Sources

Sunlight and fire are two common natural sources. Heaters and infrared lamps, which are used in homes and infrared saunas for health reasons, are two common artificial sources. In the infrared range are also heat sources like making steel or iron and working in a foundry.

Health Effects of Infrared Radiation

IR can pass through human skin and the eye at a variety of depths, from a few millimetres for IR-A to only a few microns for IR-C. Humans have innate defensive aversion reactions to high heat pain and the intense light that is frequently present in order to prevent possibly dangerous exposure. The damaging effects of IR on human health are caused by thermal damage to tissues, which is mostly mediated by water molecules but also by modifications to protein structure. The cornea, iris, lens, and retina are all extremely vulnerable to different types of heat injury.

ULTRAVIOLET RADIATION (UV RADIATION)

Sources of UV Radiation

The main source of UV radiation is sunlight. A few different types of UV lamps, arc welding, and mercury vapour lamps are examples of artificial ultraviolet sources.
Many applications of UV radiation are found in industrial operations as well as in the fields of medicine and dentistry, including phototherapy, sun tanning, the production of fluorescent effects, the curing of inks and resins, and the death of microorganisms. For various applications, different UV wavelengths and intensities are used.

ULTRAVIOLET RADIATION (UV RADIATION)

Health effects of UV Radiation

Some exposure to UV light is important for good health. It gets the body to make more vitamin D. UV lamps are one example of a medical tool that can be used to treat psoriasis (a condition causing itchy, scaly red patches on the skin).
UV radiation can cause different kinds of skin cancer, sunburn, and ageing of the skin faster. It can also cause cataracts and other eye diseases. How bad the effect is depends on the wavelength, the strength, and the length of exposure.
UV light is especially dangerous to the eyes. Even a few seconds of exposure can cause photokeratitis and conjunctivitis, which are painful but only last for a short time. Photokeratitis is a painful condition that happens when the cornea of the eye gets inflamed. The eye is watering and it's hard to see.
UV exposure can cause eye problems like "flash burn," "ground-glass eyeball," "welder's flash," and "snow blindness," depending on where the UV light came from that caused the injury. Pain, a feeling like there is sand in the eye, and a dislike of bright light are all signs.

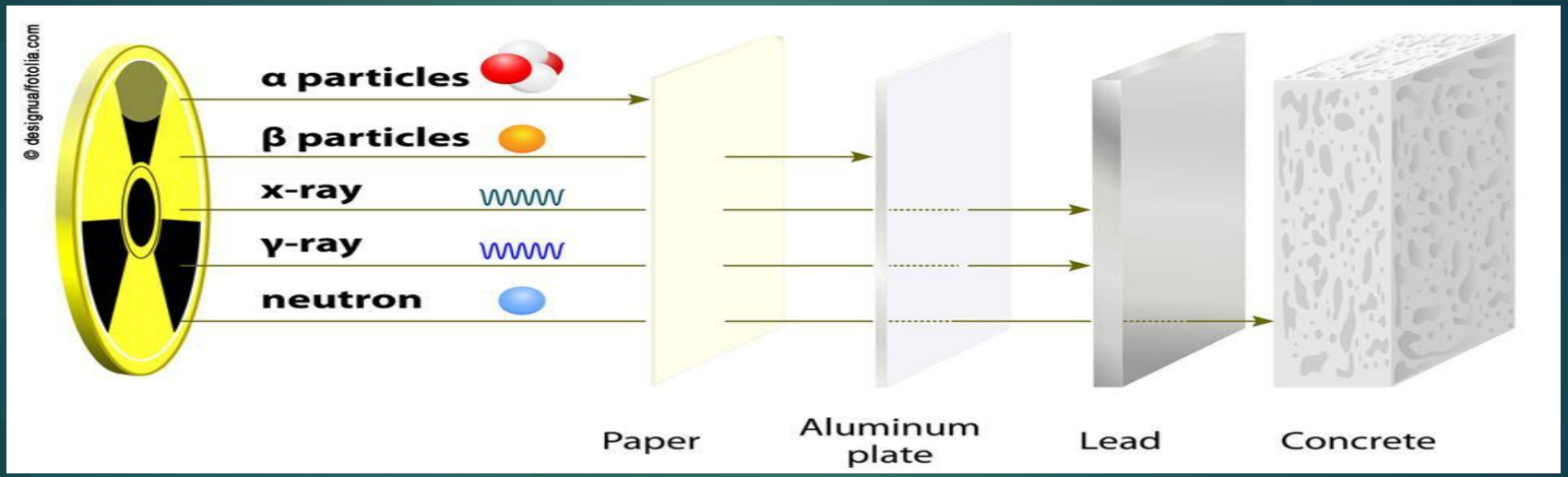
ULTRAVIOLET RADIATION (UV RADIATION)

Precautions

UV radiation can't be seen, so it doesn't make the eyes' natural defenses work harder. When working with UV radiation sources that could cause damage to the eyes, workers must protect their eyes and skin. The type and strength of the UV source will determine what kind of eye protection you need.
UV light is easily absorbed by many different kinds of materials. Most shields are easy to design. Mercury lamps and metal halide lamps have a glass cover on the outside to stop UV radiation from getting in. If the glass cover breaks, the lamp stops working.

TYPES OF IONISING RADIATION

- Alpha Radiation
- Beta Radiation
- Gamma Radiation
- X-Radiation
- Neutron Radiation



SOURCES OF IONISING RADIATION

- Medical and dentist offices (e.g., X-rays).
- Specialty departments in hospitals and outpatient treatment centres,:
- X-rays and computed tomography (CT) scans are examples of radiology.
- Nuclear medicine.
- Radiation oncology.
- Interventional fluoroscopy or radiology.
- Cardiac angiography.
- Nuclear power plants (reactors) and their support facilities.
- Nuclear weapons production facilities.
- Industrial operations (e.g., radiography equipment for testing materials or products).
- Universities, colleges, and other scientific institutions that have research labs).
- Veterinary facilities.
- Manufacturing settings and construction.
- Security operations.
- Air and space travel and transport (i.e., in-flight) operations, especially at high altitude.
- Workplaces with high levels of naturally-occurring radioactive materials (NORM), such as radon.
- Worksites with high levels of technologically enhanced naturally-occurring radioactive material (TENORM), such as uranium and other radioactive elements encountered during hydraulic fracturing (commonly known as "fracking") as part of oil and gas well development.

HEALTH EFFECTS OF IONIZING RADIATION

When ionising radiation comes into contact with cells, it can harm the cells and their DNA (i.e., deoxyribonucleic acid, or DNA). If this damage isn't fixed right away, it can kill the cell or cause harmful changes in the DNA (called "mutations").

There are two kinds of health effects from radiation doses: those that can be predicted and those that can't. Effects are definite once a certain dose is reached, which means that doses below the threshold are not likely to cause the effect. The effect gets stronger as the dose goes up. Reddening of the skin, or erythema, is one example. Even though this may not be a good way to describe all deterministic health effects, it is sometimes used to describe them.

Chance is what causes stochastic effects. The effect is more likely to happen in a population if more people get the dose, but the dose doesn't affect how bad the effect is. Cancer is the main random effect that can come from a high dose of radiation, and it can happen many years after the exposure. It is thought that random health effects don't have a minimum dose below which they don't happen.

CONTROL MEASURES

- Spend as little time as possible in places with high radiation levels. Workers get less radiation from a source when they are exposed to it for less time.
- Stay as far away as possible from the source(s) of radiation. As a worker moves away from the source, the amount of radiation he or she is exposed to goes down. For gamma rays and X-rays, the intensity of the radiation decreases as the distance from the source increases by a square (i.e., the inverse square law). This means that if you move away by a factor of 2, the dose rate goes down by a factor of 4.
- Use shielding for radiation sources, which means putting a proper shield between the radiation source(s) and workers. By putting the right shielding (like lead, concrete, or special plastic shields, depending on the type of radiation) between a worker and a radiation source, the dose the worker gets will be greatly reduced or even eliminated.
- Qualified staff (like a Radiation Safety Officer or Health Physicist) to oversee and be responsible for radiation protection policies and procedures.

CONTROL MEASURES

- A dosimetry programme in which personal exposure monitoring is done for external dose and, if needed, for internal dose, as required by central or state regulations.
- Surveys and monitoring of the area to record radiation levels, radioactive material contamination, and possible worker exposures.
- Controls for radioactive materials, such as controls for entry and exit, receiving, inventory control, storage, and disposal.
- Training for workers on radiation protection, including the health effects of ionising radiation dose and radiation protection procedures and controls to reduce dose and keep contamination from happening.
- Procedures for spotting and dealing with radiological emergencies.
- Recordkeeping and reporting programmes to keep all records and provide dosimetry reports and notifications, as required by federal or state regulations.
- There are internal auditing procedures to check all parts of the radiation protection programme once a year.

THE ROLE OF HEALTH SURVEILLANCE

Medical health surveillance is meant to protect workers and people who want to work for them from health risks;

(a) By making sure that people who work with radiation are fit to do their jobs as classified workers.

(b) By looking for conditions that might have the same effects as radiation.

(c) By finding conditions that might have been caused by radiation or made worse by it.

5.4 MENTAL ILL-HEALTH

SERIOUS SIGNS OF MENTAL HEALTH ISSUES

- An unhealthy or unkempt appearance or an abnormal appearance
- Mood swings, emotional roller coasters, and erratic behaviour
- Easy to get irritated, frustrated, or angry
- Changes in how you eat or sleep
- Moments of confusion or being unable to solve a problem
- Unnecessary fear, worry, or anxiety
- A drop in or lack of productivity
- Withdrawing from social situations, especially with coworkers
- Abuse of drugs, alcohol, or other vices

STRESS

Stress, according to the Health and Safety Executive (HSE), is "the bad reaction people have to too much pressure or other types of demand placed on them."

When people at work can't deal with pressures and other problems, they feel stressed. Employers should match their needs with the skills and knowledge of their workers. For example, workers can feel stressed if they don't think they have the skills or time to meet tight deadlines. Planning, training, and help can help relieve pressure and lower stress levels.

People react differently to stress, so what stresses one person might not stress another. Whether or not a worker can deal with a situation depends on skills, experience, age, or a disability.

MANAGEMENT STANDARDS FOR WORK-RELATED STRESS

The Management Standards describe the traits or culture of an organisation that effectively manages and controls the risks that come from work-related stress.
They cover six important parts of how work is set up that, if not managed well, can lead to bad health and well-being, lower productivity, and more sick days. In other words, the six Management Standards cover the main things at work that cause stress. These things:

- Demands – This includes things like the amount of work, the schedule, and the environment at work.
- Control – how much control a person has over how they do their job.
- Support – This includes the support, encouragement, and resources given by the company, line management, and colleagues.
- Relationships – This includes encouraging good work to avoid conflict and dealing with behaviour that isn't acceptable.
- Role – if people know what their role is in the organisation and if the organisation makes sure that people don't have roles that are at odds with each other.
- Change – how big or small organisational changes are handled and shared in the organisation.

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5.5 VIOLENCE AT WORK

VIOLENCE AT WORK

What is Violence?

The Health and Safety Executive defines workplace violence as follows: (a) "any occurrence in which a person is abused, intimidated, or assaulted in work-related circumstances."

(b) Verbal abuse and threats are the most frequent forms of violence. Physical attacks are rather uncommon.

Who is at risk?

Those whose jobs compel them to interact with the public may be vulnerable to violence. Most vulnerable are those who engage in:

- giving a service
- Caring
- Education
- Cash transactions
- delivery/collection
- controlling
- representing authority

EFFECTIVE MANAGEMENT OF VIOLENCE AT WORK

A straightforward four stage management process is set out below-

Stage 1 Finding out if you have a problem
Stage 2 deciding what action to take
Stage 3 Take action
Stage 4 Check what you have done

EFFECTIVE MANAGEMENT OF VIOLENCE AT WORK

Stage 1 Finding out if you have a problem

- Ask your staff
- Keep detailed records
- Classify all incidents
- Try to predict what might happen

EFFECTIVE MANAGEMENT OF VIOLENCE AT WORK

Stage 2 deciding what action to take

- ❑ Decide who might be harmed, and how
- ❑ Identify which employees are at risk
- ❑ Evaluate the risk

Consider the way these factors work together to influence the risk of violence.

- ❑ Training and information
- ❑ The environment

Offer improved seating, dcor, and lighting in public waiting areas, as well as more frequent updates on delays.

Consider the following physical security measures:

- ■ Video cameras or alarm systems;
- ■ coded security locks on doors to keep the public out of staff areas;
- ■ wider counters and raised floors on the staff side of the counter to give staff more protection

- ❑ The design of the job

Use checks, credit cards, or tokens instead of cash to reduce the appeal of robbery.

- ❑ Record your findings
- ❑ Document the major findings of your evaluation. The document should serve as a working document for both management and staff.
- ❑ Review and revise your assessment

EFFECTIVE MANAGEMENT OF VIOLENCE AT WORK

Stage 3 Take action

Your policy for addressing violence could be included in your health and safety policy statement, so that all employees are aware of it. This will aid your employees in cooperating with you, adhering to protocols, and reporting additional events.

Stage 4 Check what you have done

Regularly evaluate the effectiveness of your arrangements, consulting with employees or their representatives. Consider establishing joint management and safety committees for this purpose. Maintain records of incidents and review them frequently; they will demonstrate your progress and whether the situation is evolving. If your measures are effective, maintain them.
If violence remains a problem, consider a different approach. Return to Stages 1 and 2 and discover other preventive measures that may be effective.

5.6 SUBSTANCE ABUSE AT WORK

WHAT THE ISSUES ARE AND WHAT TO LOOK OUT FOR

Abuse is not equivalent to dependence. The use of illegal narcotics and the abuse of alcohol, pharmaceuticals, and chemicals such as solvents constitutes drug and alcohol abuse.

Consider the following indicators of substance or alcohol abuse:

- unexplained or frequent absences
- a change in behaviour
- unexplained dips in productivity
- more accidents or near-misses
- performance or conduct issues

HOW TO MANAGE SUBSTANCE ABUSE ISSUES?

- Consult your employees
- Look at safety-critical work
- Develop a policy
- Screening and testing for drugs and alcohol
- Support employees with a drug or alcohol problem
- Training and awareness
- Support for employees
- Health advice and information

END OF SESSION QUIZ

1. Which of the following is responsible for mutagenic effects?

(Choose the correct option)

1. Ionising Radiation
2. Non-Ionising Radiation

END OF SESSION QUIZ

Which of the following can be a source of whole body vibration?

(Choose the correct answer)

1. Portable drills
2. Dumper Trucks

END OF SESSION QUIZ

Use of CCTV surveillance is an effective control measure used to reduce the risk of which of the following?

(Choose the correct option)

1. Noise
2. Violence at work

END OF SESSION QUIZ

Which is more effective to reduce the exposure to high frequency Noise?

(Choose the correct answer)

1. Ear Defenders
2. Ear Plugs

END OF SESSION QUIZ

'Snow Blindness' is a health effect developed due to which of the following?

(Choose the correct answer)

1. Radio frequency radiation
2. Ultraviolet radiation