

YOU REALLY NEED TO

HEAR THIS

Bear with me and before you start reading; think of your favourite song ... you know the one I mean, when the first few bars play, and it connects you with a memory or a feeling, you smile, and your mood is suddenly improved hum a few bars ... how does it make you feel? Happy? Relaxed? Excited? Keep that in mind......

At uvex it is our fundamental belief that everyone should go home from work in the same condition they went to work in. Our mission of **protecting people** influences every aspect of our daily operations and is in our DNA.

This includes protecting your hearing. Common sense, right?

I mean, don't get me wrong, we should be protecting our hearing in our personal lives too, as once it is gone but, no one should lose their hearing by going to work. No-one.

I guess the "big questions" are what, why and how? So, sit back, relax, keep humming your favourite tune (maybe put it on in the background whilst you read) and let's go through, the "what", the "why" and the "how":

WHAT EXACTLY IS

HEARING LOSS?

Do you know there are 4 types of hearing loss?

- CONDUCTIVE hearing loss is often temporary and caused by infections, ear wax, foreign bodies etc. and generally can be treated or clears up naturally. (OK, so when we speak about hearing loss and say "when it's gone it's gone, we are talking about sensorineural, mixed and neural hearing loss which are permanent).
- SENSORINEURAL hearing loss is permanent and is the most common type of hearing loss, either caused by noise, or presbycusis (old age). In most cases, the hair cells that send the signals to the brain are damaged or have died naturally.
- **3. MIXED** hearing loss is a combination of conductive and sensorineural hearing loss which often results in partial impairment.
- **4. NEURAL** hearing loss is damage to the auditory nerve (the nerve connecting the inner ear with the brain) and is permanent.

Do you know profound deafness is defined as not being able to hear sounds below 95 dB¹? To put that into context, a jack hammer, 15m away is about 90 dB! That's LOUD right?

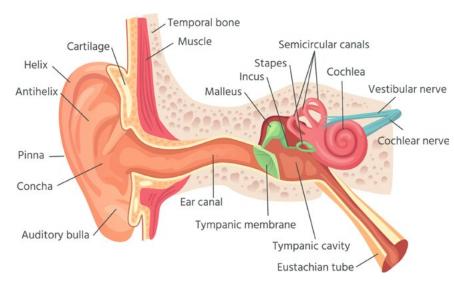
OK, so that is the biological and physiological explanation, but in 'real' terms, what is hearing loss?

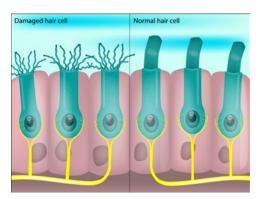
Hearing loss is coming home after a hard day at work and the new season of your favourite show has just dropped on your streaming service and you struggle to hear it or can now only follow it with subtitles.

Hearing loss is going on a first date, and you go to a busy restaurant, and you can't follow the conversation.

Hearing loss is asking people to repeat themselves, perhaps in meetings when there is background noise, because you couldn't hear the first time.

Hearing loss is not being able to hear your child's, or grandchild's, first words.







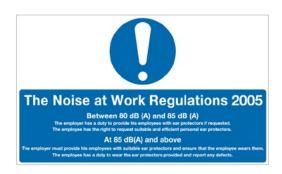
LET'S TACKLE THE

"WHY"?

You may agree that we have tackled the "why", and yes, they are very good reasons why we should protect our hearing – absolutely!

But also....

Do you know that noise that induced hearing loss is **the** most common, **permanent**, and **irreversible injury** in the world²?



In work environments, in the UK, it is a legal requirement stated in the **Health and Safety at Work Act 1974** to protect employees whilst at work,

Section 2.1 "It shall be the duty of every employer to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all his employees.3"

Having said that though, in the UK alone, there have still been **11,000** cases **per year** of people since 2020⁴ who have hearing problems caused or made worse simple by going to work, resulting in **85** cases in 2022 of occupational deafness⁵.

It is 85 cases too many! Don't you think? (Especially as [at work] it is completely preventable, but we will get on to that).

It is a legal requirement, but beyond that there is a moral responsibility. However, if that is not enough, there are also monetary implications for any company that does not put the health of its workforce as a priority.

We've all heard or seen those ads "have you suffered noise induced hearing loss at work? .. well then you could be owed thousands!" Sad, but unfortunately, very true.

Do you know a compensation claim for slight or occasional tinnitus with slight industrial noise induced hearing loss can range from £7,000 to £12,500 per case?? And total deafness caused by work can be anywhere from £90,000 - £109,000 6 ?!?!

But to be clear, yes, companies have a responsibility to their employees, but employees also have a responsibility to protect themselves, and colleagues too.

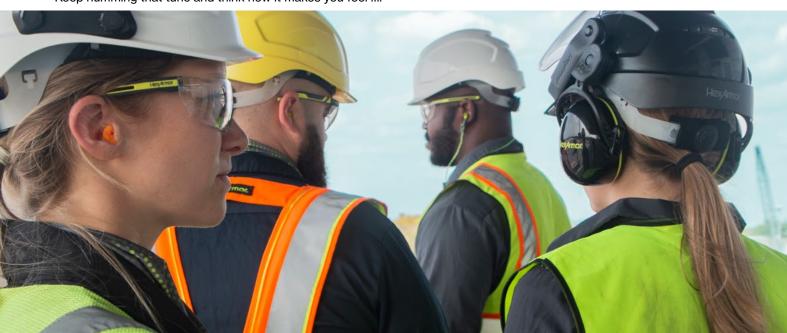
The Health and Safety at Work Act 1974,

Section 7 (a) "It shall be the duty of every employee while at work— to take reasonable care for the health and safety of himself and of other persons who may be affected by his acts or omissions at work.""

When it comes to noise specifically, the **Control of Noise at Work at Work Regulations 2005**8 details the duties of the employer, and the employee.

How much value do you put on your hearing?

Keep humming that tune and think how it makes you feel



WHAT CAN YOU DO TO PROTECT YOUR

HEARING [AT WORK]?

Education is paramount; understanding noise, the regulations, the standards, how to select the correct hearing protection and fit hearing protection properly, the consequences of not doing so, as well how to inspect, clean and store your hearing protection, are imperative for the employer, and the wearer.

There are a few things to highlight that are useful to know and implement but the below is only the start of a comprehensive hearing conservation programme.

The first step would be to understand the noise you have in your workplace. This can be achieved by having a **noise assessment and survey** undertaken by a competent person.



The noise exposure in a workplace measures the amount of noise that a person would be exposed to over an 8-hour day. If you work more or less than 8 hours, it is calculated to a mean of 8 hours in order to work out the protection required.

The survey will allow decisions to be made on factual information and ensure the right level of protection is achieved and with the case of noise, not to overprotect.

With most PPE, if you overprotect, this is not necessarily a negative thing, it increases the safety of the wearer, but with hearing protection it is just as important not to overprotect as it is to not under protect.

Overprotection has negative consequences of its own. It can lead to the wearer not being able to communicate effectively, not hear alarms or other emergency signals, or even moving machinery, which could result in an injury, or worse. The impact of the individual's wellbeing also needs to be taken into consideration. Overprotection could also lead to the wearer potentially feeling isolated and have negative consequences for their wellbeing.

It is important to select the correct hearing protection to get the correct balance of protecting by bringing the noise to a safe level, but not overprotecting and causing isolation.



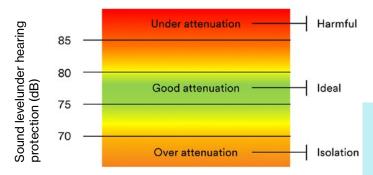


BUT WHAT IS A "SAFE LEVEL"?

At a daily or weekly exposure of 80 dB the employer must provide information and training and make hearing protection available, and the employee has the right to request suitable hearing protection.

At a daily or weekly exposure of 85 dB the employer is required to take reasonably practicable measures to reduce the noise. If the noise cannot be controlled the use of hearing protection is **mandatory**. The employee has a duty to wear the hearing protection and report any defects.





Noise **must not exceed** a daily or weekly exposure of 87 dB or a peak sound pressure of 140 dB.

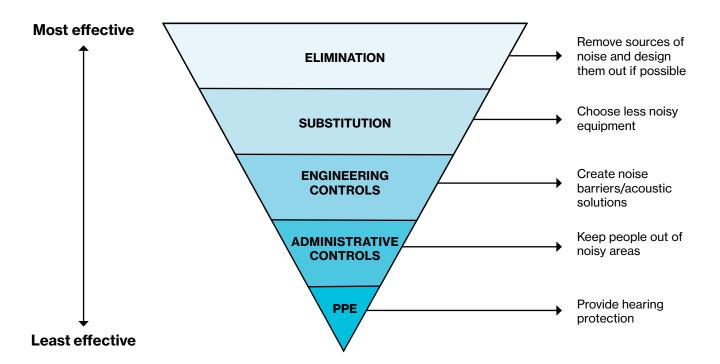
The term 'peak noise' is used to describe an occasional or one-off noise from an impact; maybe a hammer hitting something, or a press machine for example.

Do you know the deciBel (dB) scale is a logarithmic scale where a doubling of sound pressure corresponds to a 3 dB increase in level, so every 3 dB increase is **twice** the sound?!?!?

Lower exposure action values (daily or weekly average noise exposure level at which the employer has to provide information and training and make hearing protection available.)	Upper exposure action values (daily or weekly average noise exposure above which the employer is required to take reasonably practicable measures to reduce noise exposure. The use of hearing protection is also mandatory if the noise cannot be controlled.)	Exposure limit values (levels of noise exposure which must not be exceeded) (the exposure limit values take in to account hearing protection provided by the employer)	
Daily or weekly exposure of 80 dB	Daily or weekly exposure of 85 dB	Daily or weekly exposure of 87 dB	
Peak sound pressure of 135 dB	Peak sound pressure of 137 dB	Peak sound pressure of 140 dB	

Like with any hazard, PPE is always the last line of defence. Noise is no different and the **hierarchy of control** must be followed:

- ELIMINATE: Can the noise be eliminated?
- SUBSTITUTE OR REDUCE: Can the noise levels be reduced? For example, by investing in quieter or newer machinery?
- ENGINEERING CONTROLS: Can engineering controls be put in place such as acoustic bays?
- ADMINISTRATIVE CONTROLS: Can people be kept away from noisy areas? Or spend less time in noisy areas?
- PPE: If the noise levels are still above safe levels, hearing protection to be provided and worn.



WHAT IS THE RIGHT HEARING PROTECTION FOR YOU?

With so many choices of hearing protection available, how do you do know what hearing protection to choose? It can be confusing, overwhelming, even daunting, as to what to select!

From "in the ear" options, but do you choose roll down (disposable) foam plugs? Or reusable ear plugs? Then you have "over the ear" options?

The answer: Involve the wearer in the selection process! (Sorry, didn't mean to shout that – but it is crucial, let me explain why.)

Involving the wearer in the selection process will help to support a successful hearing conservation programme as we all know, the best PPE is the PPE that gets worn, and if its worn, you are better protected. If the wearer is involved from the beginning and throughout the selection process and selects hearing protection specifically for them, there is absolutely no excuse to be non-compliant is there? And you know, and they know, they are safe, and we all want to be safe and protected, right?



Selecting hearing protection should, of course, be suitable for the noise levels (absolutely!) but it should also be:

Suitable for the INDIVIDUAL/ WEARER (it is PERSONAL protective equipment after all)

Making sure any medical disorders are taken into account, ensuring the comfort of the hearing protection, to considering the size of the ear canal (yes, our ear canals are different sizes, just like our hands and feet).

The ENVIRONMENT the wearer is working in

Is it hot or humid? Would choosing ear defenders in such an environment cause sweat around your ears? Is it dusty and dirty? Again, with ear defenders could dirt get onto the cups easily which are against your head? Or if your hands get dirty and then you have to roll down a new pair of plugs and put them in your ear?? Think about the environments you work in and the challenges they may present and factor it into the decision-making process.

Suitable for the TASK being undertaken

For example, you don't want corded earplugs to be an entanglement risk. Again, consider the various tasks you undertake and the challenges they may present and factor it into the decision-making process.

Allow for COMMUNICATION and WARNING SIGNALS

As we now know, the point of hearing protection isn't so you can't hear anything, but to bring it to a safe level; we don't want any wearer to feel isolated. It is important that communication is possible, even when hearing protection is worn. It is also important to factor in any warning signals and alarms that may be sounded so the wearer has their hearing protected but so they can also hear emergency alarms.

COMPATIBILITY:

If other forms of PPE need to be worn, then this should be part of the selection process too. To find hearing protection that doesn't hinder other forms of protection, but to work in conjunction with it, to keep you safe. For example, if you need to wear a safety helmet, you may want to consider helmet mounted ear defenders, but then if you need eye protection too, and this is not part of the helmet, you may need to consider roll down or reusable ear plugs so your eye protection doesn't affect the attenuation levels you receive by pushing out the cups of your ear defenders.



Looks like a lot to remember, but below is a check list to consider, or when in doubt, just remember:

HETICC

(pronounced HET - IK)

Hazard (noise level), Environment, Task, Individual, Communication (and warning signals) and Compatibility.

Types of **Noise reduction** Pattern of the protector, and **How well the** (attenuation) Compatibility noise exposure.; suitability for selected product offered by the with other PPE continuously or the work being is fitted protector occasionally carried out The need to **Environmental** Medical Cost of communicate factors such as **Comfort and** disorders maintenance or and hear warning heat, humidity, user preference suffered by the replacement dust and dirt sounds wearer

At uvex we call this **WEAR**ABILITY. And what is **WEAR**ABILITY I hear (no pun intended) you ask? **WEAR**ABILITY = Compliance = Safety

It's PPE that doesn't get in the way allowing you to focus on the task at hand. Ultimately, it's the perfect balance of four main factors:



FIT

One size does not fit all

No one ear canal is shaped the same. uvex earplugs are available in a variety of shapes and sizes and expand up to 30x slower compared to other brands – giving you time to properly compress and insert the earplugs.



COMFORT

With proper fit comes comfort

Shape matters for all-day comfort and compliance. uvex challenges the "one-size-fits-all" mentality to offer custom-fitting features like different sizes, tapered structures, oval shapes, and scientifically-designed interior channels that accommodate a range of ear canal sizes.



PERFORMANCE

Product performance

Quality and technology makes all the difference. Engineered with premium high-density foam and scientifically-designed, uvex were the first to offer an innovative, unique oval design that adjusts perfectly to the anatomy of the ear canal. This not only increases comfort, but it also makes for easy removal.



STYLE

Modern style

Ergonomic design meets style and convenience. Our lightweight, pressurefree fit combined with high levels of protection offers noise reduction ratings between 22-37 decibels, keeping you safe and compliant on the job.



TECHNICAL BIT...

It is important, like with all PPE that they are tested, and conform to the necessary standards. In the UK, EN 352 is the standard for hearing protection - general use and requirements but then depending on the type of hearing protection, ear plugs, earmuffs etc, they must meet one of the following standards:

BS EN 352-1:2020	Ear-muffs		
BS EN 352-2:2020	Ear-plugs		
BS EN 352-3:2020	Ear-muffs attached to an industrial safety helmet		
BS EN 352-4:2020	Level-dependent hearing protection ear-muffs		
BS EN 352-5:2020	Active noise reduction ear-muffs		
BS EN 352-6:2020	Ear-muffs with communication equipment		
BS EN 352-7:2020	Level-dependent ear-plugs		
BS EN 352-8:2020	Entertainment audio ear-muffs		
BS EN 352-9:2020	Earplugs with safety-related audio input		
BS EN 352-10:2020	Entertainment audio earplugs		





In addition to EN 352, the acoustic performance must be ascertained for all certified hearing protection under BS EN 13819-2:2020 Hearing Protectors.

It really is important to buy PPE that does conform to these standards so then you know that what you are wearing has the ability to protect you. I mean you wouldn't buy a faulty toaster? You would buy one you know has been made to safe standards so it can't harm you, or your family.

A-weighted noise level dB	Selecting a protector with an SNR of		
85-90	20 or less		
90-95	20-30		
95-100	25-35		
100-105	30 or more		

Under BS EN 13819-2:2020 the attenuation is calculated as an average [of all subjects], minus a Standard Deviation.

The attenuation data will give a Single Number Rating, often called the "SNR".

The SNR, or Single Number Rating, is a calculated figure which gives an indication of the potential protection that a product will provide, if fitted and worn correctly. It can be used as the initial part of your method of selecting the protection required following a noise assessment.

The SNR value can be used to compare the level of noise attenuation offered by different hearing protectors. To determine the noise at your ear, you subtract the SNR value of the hearing protection chosen from the average noise level measured.

The higher the SNR, the higher the level of noise attenuation provided by the hearing protection, if fitted correctly. (This is really important, which you may be able to tell as mentioned it a few times ... we will come on to fitting and education shortly.)

The HSE states "aim to get below 85 dB at the ear" and "protectors that reduce the level at the ear to below 70 dB should be avoided, since this over-protection9" Ideally, you would aim to get between 70 – 75 dB at the ear.

For example, you have a noise level of 98 dB, and the hearing protection chosen has an SNR of 26.

98 (dB) - 26 (SNR) = 72

Otherwise known as sufficient protection of your hearing; not under, or overprotecting!!





If fitted correctly that is! If not fitted correctly it may not give the full protection. The HSE advise "You should account for this 'real world' protection by 'derating' the protector by 4 dB [but that] the use of a derating factor will not necessarily mean that you will need to select a protector with a higher rating than one you currently use.¹⁰"

However, **watch this space!** As uvex will be launching a way to check, confirm and have tangible data as to the protection achieved at the ear for each wearer! How amazing will that be?! No more guessing? Knowing that your hearing is adequately protected!! **Watch this space!** (Now I am doing a happy dance to the song I am humming! Keep humming that song, feel free to do a happy dance too!)

It is also good to consider the frequencies of the noise in your workplace. You may have noticed on hearing protection there are also HML values?

HML are **High**, **Medium**, and **Low** frequency values. From the noise survey the frequencies will be determined, and hearing protection SNR values may differ depending on the frequency so just a **top tip** to check you have the right protection.

;	SNR	37dB	Н	36dB	M	35dB	L	34dB
	SNRm	40.0dB	Hm	39.1dB	Mm	38.1dB	Lm	38.0dB
	SNRs	2.8dB	Hs	3.1dB	Ms	3.2dB	Ls	3.6dB

Don't forget a 3 dB increase is doubling the noise level!

EDUCATION, EDUCATION,

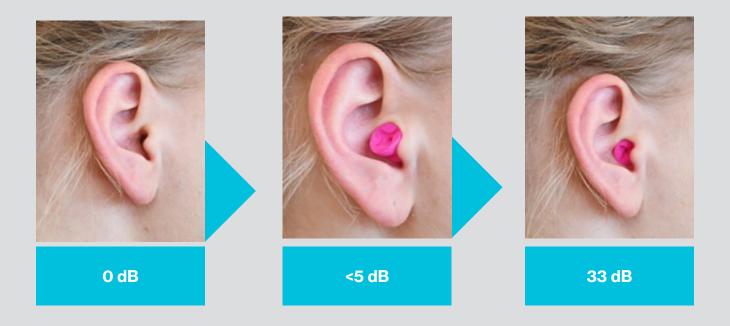
EDUCATION, ... AND FIT!!

Everything mentioned so far is important but **one** thing that all people who wear hearing protection can do is to ensure they know how to fit them properly.

Be honest, how many times have you seen earplugs sticking out of someone's ear?

Education on how to fit your hearing protection is a legal requirement*, but more than this, if they are not fitted properly, they are not protecting properly.

They are not protecting you properly.



If you are unsure, ask for additional training and instruction, but see our guide below for fitting roll-down (disposable) earplugs. You can find this, and other useful information, including how to look after your hearing protection in our knowledge hub https://www.uvex-safety.co.uk/en/knowledge/hearing-protection-size-and-fit/



Roll down uvex disposable hearing protection plugs.



Put your arm over your head and move the ear slightly upwards to straighten your auditory canal. This achieves a better fit.



Insert plugs and hold in place while they expand. If they are not visible from the front, then they are in the right position.

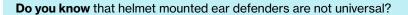






Also, it is a common belief that ear defenders cannot be fitted incorrectly. OK, they are easier to "put on" but that doesn't necessarily mean they are fitting and protecting you.

This can be due to a range of things; not covering the full ear, wearing other items of clothing or PPE "pushing out" the ear defender, for example hats or glasses side arms which breaks the seal of the cup and therefore the intended attenuation, which as we have mentioned, considering other items of PPE and compatibility with them should always be part of the selection process.



They cannot be attached to any and every helmet, even if they might fit! It is important to understand that helmet mounted ear defenders should be used with helmets where they have been tested together as a whole unit. This is the only way to know for certain what SNR levels are truly achieved.



"The combination needs to have undergone full testing and certification together... without appropriate testing and approval of the combination system you cannot assume that the earmuff will provide the expected level of protection."

- BSiF, Just-because-it-fits.pdf (bsif.co.uk)







EDUCATION IS

ESSENTIAL.

Understanding how to fit your hearing protection, is vital, of course it is, but we can, and **should** go further - as you are doing by reading this.

Understanding **why** we should protect ourselves, understanding **how** to select the right products for you as an individual and how to look after them, understanding **what** all the standards mean and regulations stipulate gives the necessary knowledge to make the safest choices.

At uvex, we work in partnership with our clients to support and empower wearers, supply chain, procurement, health and safety, at every level of an organisation, with educational programmes. We call this 'The uvex training academy' (which is award winning by the way, at the 2024 BSiF Awards, claiming the Winners prize in the Safety Solutions category #justsaying).

"Our industry deserves a better and safer environment for everyone. To achieve this, we need to help provide a healthier, sustainable, and more educated future that **enables today's workforce to return home to their families** knowing that everyone has taken full responsibility to ensure this happens."

Carl Dwyer, uvex Sales Director

Far too many people don't return home, or have life altering or limiting health conditions caused by their job – we owe it to them and their families, to do everything we can to protect ourselves, because we deserve to return home in the same condition we went to work in.

For more information: uvex training academy https://www.uvex-safety.co.uk/en/knowledge/uvex-academy/about-us/







GOOD

HOUSEKEEPING...

Have you ever thought about where you put your hearing protection when you're not wearing it? Do you put them down on your work bench? Or put them in your in your pocket? Or chuck them in the back of your van?

The cleaning, maintenance and storing of your hearing protection (of any PPE), if reusable, again, are legal requirements*. There is even an EN standard for this: BS EN 458 'Hearing protectors - Recommendations for selection, use, care and maintenance'. BS EN 458 is currently under revision, with the updated version likely to be implemented in 2026 – so watch this space!

But more than that, it is just good sense, both personally and professionally, right? Hygiene is perhaps the most obvious reason, isn't it? We don't go round being dirty in life, or if we get dirty, whether that be in work or in our personal lives, we go home, have a shower, clean our clothes. Why? Because we know being dirty isn't good for us.

Be honest though, have you ever really thought about it for your hearing protection?

When you put your plugs in your pocket, what kinds of dusts and dirt could be in there? When you put them on your work bench, what kinds or greases or oils or contaminants could find its way on to your hearing protection? After a hard day's work and you have gotten hot and

sweaty, and then chucked your ear defenders in the back of your van, what else could be lurking?

Knowing how to care for, clean, replace parts if able to do so, and store in a clean box, is imperative to keep your hearing protection hygienic. After all, these products are either going around your ear, or in your ear And so could the dirt it has picked up (*shudder*), if, not cared for correctly.

The second is a bit more practical, but equally good sense. If your hearing protection is cleaned, maintained, and stored correctly, they will last longer!!

This has two main benefits; reducing costs by not having to replace the hearing protection as often but it is also better for the planet! By caring for and looking after your hearing protection, by helping to make them last longer, offers sustainable benefits as not as much will be thrown into landfill!

Not to mention your administrators will thank you as they won't have to order as regularly, saving their time (and saving more money)!

And last but certainly not least, for your health and safety.

Even if in "clean" environments, for example, if you are wearing ear defenders and you get all sweaty, that sweat will stay on the cushion so needs to be cleaned and then stored correctly; your hearing protection always needs to be cleaned, maintained and looked after, whether you can physically see the dirt or not, as you don't want them to become damaged as then they may not protect you, and your hearing properly.

You wash your dishes at home, I hope? Why? Because you don't want to eat off dirty plates.

and your hearing properly.

So, taking less than 5 minutes to clean and store your hearing protection properly, that is protecting your hearing, is worth it, right?

Don't forget, if you find any defects, you have a duty, not only to yourself (it's your hearing after all) but to your employers under The Control of Noise at Work Regulations 2005, to report them so they can be replaced. PPE, no

matter the quality, or how well it is looked after will eventually wear out and need replacing – and that is OK.

It is important to not wear your hearing protection, or any PPE, if damaged, as we have said, they then may not protect you,





SUMMARY

The **Control of Noise at Work Regulations 2005** requires employers to prevent, or reduce to a safe level, the risks to the health of their employees, from noise exposure at work.

Employers must:

ASSESS

Have workplace noise levels assessed by a competent person which details noise levels as well as any risk it poses to employees.

HEALTH SURVEILLANCE

Where there is a risk to health, occupational health surveillance must be undertaken by a competent person at regular intervals, and results recorded.

ELIMINATE OR REDUCE

Following the hierarchy of control by eliminating the noise at source, where possible. Where this is not reasonably practicable, it must be reduced to as low as is reasonably practicable (before implementing hearing protection).



ACT

If, after noise reduction measures have been taken and one of the Exposure Action Values are exceeded then the relevant actions to protect employees hearing must be taken.

ZONES

Hearing protection zones must be marked

PPE

Providing hearing protection is a last resort. If needed as a control measure, it must be selected to protect, but not overprotect the wearer.

- Cleaning, Maintenance and Storage: If reusable hearing protection is needed employees must be provided the ability to clean them, and where needed, trained how to maintain their hearing protection as well as provide a sufficient storage receptacle to house their hearing protection in.
- Report Defects: To allow employees to report any defects and replace when required.
- **Education and Training:** If hearing protection is needed employees must be trained in the correct fitting and wearing of the protection.

But don't forget, it isn't all down to the employer, as employees we have a duty to "take reasonable care for the health and safety of [themselves] too".

Now, you know that song I asked you to think of? The one that reminds you of a good time in your life? That instantly improves your mood? And makes you happy, or excited, or relaxed......

