

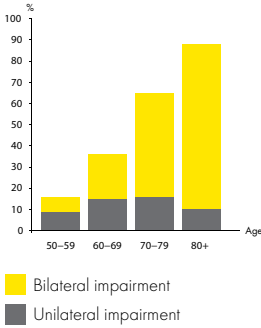
# Noise affects quality of care

**Studies and facts**



**Ecophon**<sup>®</sup>  
SAINT-GOBAIN

A SOUND EFFECT ON PEOPLE

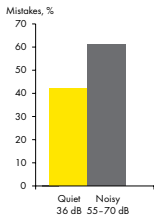


### Hearing loss reduce quality of life

Age-related hearing loss (presbycusis) affects approximately 37% of 61–70 year-olds, 60% of 71–80 year-olds and almost 90% of people older than 80. Frequent communication problems and misunderstandings are known to lead to withdrawal, self-doubt, depression and dogmatism. Impaired hearing also affects spatial orientation and increases the risk of falling.

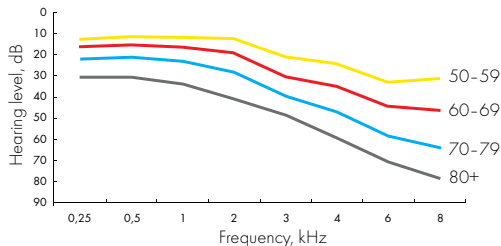
### Noise affects everybody, and some more than others

The most widespread and well-documented subjective response to noise is annoyance. For some this may include fear and mild anger, related to a belief that one is being avoidably harmed. For others, noise may reduce helping behaviour, increase aggression and reduce the processing of social cues.



### Unwanted sound reduces performance

There is a significant difference when performing a complex task in a quiet or noisy environment. In a noisy environment the performance is approximately 50% less accurate. Consider how this may affect work in healthcare facilities, where complex tasks are performed almost all the time.



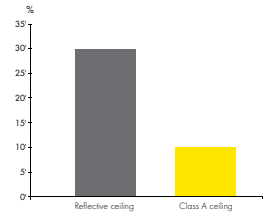
### Shouting just to be heard

In general, clear speech communication needs to be at least 15 decibels louder than the background noise. So if the background noise is 70 decibels, this means communication must be conducted at around 85 decibels.

Or, in other words, people need to consistently speak as loud as the sound from a circular wood saw.

### Less noise – less medication

In a study of intensive coronary care, the number of chest-pain patients in need of extra intravenous beta-blockers was reduced by 67%, simply by changing the sound-reflecting ceiling to a class A sound-absorbing ceiling.



### Sleep well and heal faster

Sleep is fundamental to human health in general and critical to patient recovery. A sleep disruption study showed that changing the ceiling from plaster to a class A sound-absorbing ceiling reduced arousals by 40%.

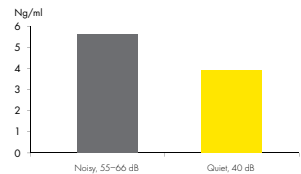
**-40%**

### Perception of attitude

Patients experiencing good and poor acoustics considered the staff attitude to be much better in the good sound environment.

### Reducing noise reduces stress

A study of stress hormones showed that the levels of epinephrine increased by 43% after just three hours of exposure to low-intensity noise, in comparison to quiet conditions.



## In conclusion

### A good sound environment

- Lowers blood pressure
- Improves quality of sleep
- Reduces intake of pain medication
- Improves communication
- Lowers stress levels
- Improves patient safety
- Enhances staff wellbeing, performance and job satisfaction

To learn more and to download our full research summary, please visit [ecophon.com/healthcarenoise](http://ecophon.com/healthcarenoise)

# Ecophon®

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*Ecophon dates back to 1958, when the first sound absorbers from glass wool were produced in Sweden to improve the acoustic working environment. Today the company is a global supplier of acoustic systems that contribute to good room acoustics and a healthy indoor environment with the focus on offices, education, health care and industrial manufacturing premises. Ecophon is part of the Saint-Gobain Group and has sales units and distributors in many countries.*

*Ecophon efforts are guided by a vision of earning global leadership in room acoustic comfort through sound-absorbing systems, enhancing end-user performance and wellbeing. Ecophon maintains an ongoing dialogue with government agencies, working environment organisations and research institutes, and is involved in formulating national standards in the field of room acoustics where Ecophon contributes to a better working environment wherever people work and communicate.*

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