



## Snoring therapies

If the sleep physician diagnoses a sleep apnea hazardous to health, he will decide which therapy to choose depending on how many breathing standstills occur during the night:

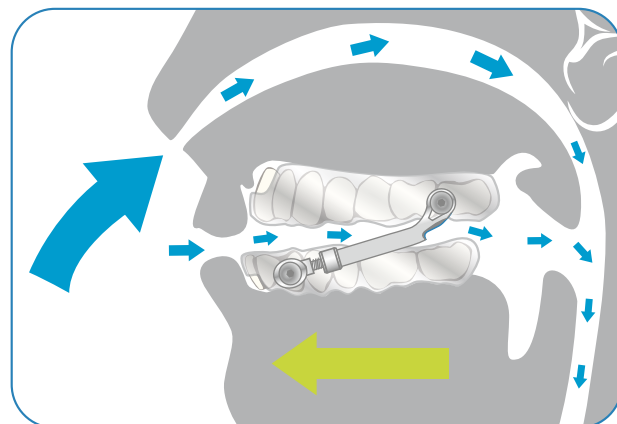
- an “Intraoral Snoring Therapy Appliance” (eg. IST® splint) fabricated by the dentist resp.
- a therapy with a positive airway pressure machine (nCPAP)

The effects of all therapies including the one from the dentist with the IST® splint have to be controlled and readjusted if necessary in a sleep laboratory or by an outpatient control system.

## Your help is required

Of course, an IST® splint is only worn at night. In order to sleep calmly and soundly again – with positive effects on your relationship – please support the efficiency of the snoring therapy by:

- reducing your weight in case of overweight
- reducing or stopping drinking and smoking (especially shortly before going to bed).



With the IST® splint, lower jaw and tongue are being held in a forward position (protrusion), thus opening the airways.

## If you do have troubles during your sleep ...

	yes	no
1 Do you snore every night – even without alcohol?		
2 Do you disturb people in nearby rooms by your snoring?		
3 Did anyone notice breathing standstills during your sleep?		
4 Do you feel tired and worn out in the morning?		
5 Do you happen to wake up with a headache?		
6 Do you feel your work performance is affected?		
7 Do you often feel tired throughout the day not knowing why?		
8 Do you fall asleep easily watching TV, reading or working?		
9 Do you happen to fall asleep in a cinema or theatre?		
10 Do you get tired easily when driving?		
11 Do you have difficulties concentrating for a long time?		
12 Do you suffer from high blood pressure and do you take medication against it?		
13 Are you overweight?		
14 Do you suffer from impotence?		

Provided by:



**The IST® splint**  
**Finally wake up**  
**rested and refreshed –**  
**without snoring.**



## Do you sleep soundly or do you snore?

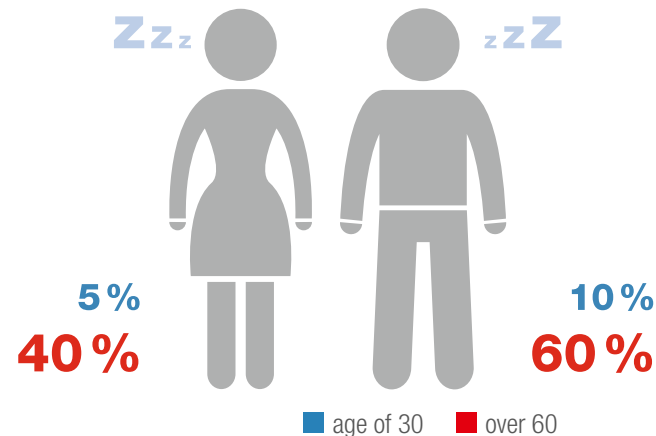
Apart from the fact that nightly snoring sounds are often felt as being quite disturbing, especially in a relationship, snoring is not an individual problem:

In fact 60 % of all men and 40 % of all women over 60 snore.

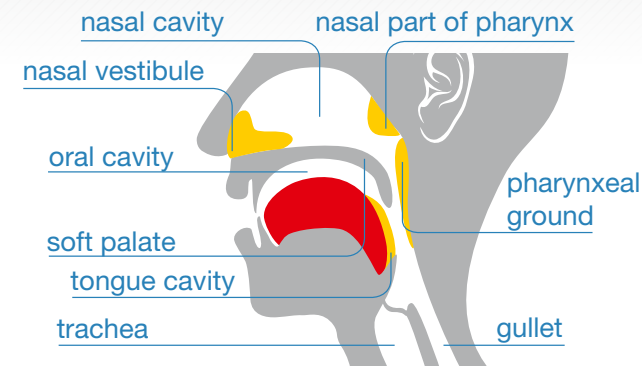
At an age of 30 it is only 10 % of men and 5 % of women. Snoring has a tendency to worsen with age.

Recent academic studies prove that snoring is a serious health hazard especially in older people. It has also been proved that snoring can reduce life expectancy by a number of years.

Tiredness during the day is one of the most serious risk factors for persons concerned: employees with monotonous jobs are more often involved in industrial accidents; the risk of having a car accident is even 7 times higher.



## The reasons of snoring and sleep apnea



■ Critical areas which may have been developed due to fat deposits or proliferation may lead to restrictions of respiratory tracts.

Snoring is caused by the temporary relaxation of the muscles in the upper respiratory tracts. The soft parts of the palate and mucous membrane in the throat begin to vibrate.

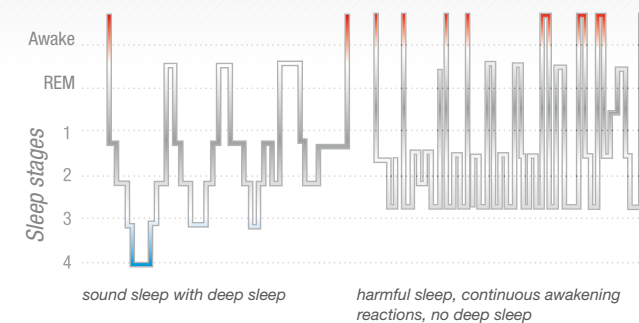
The tongue muscles which relax during sleep fall backwards, obstructing the throat for seconds, leading to a breath standstill.

In overweight people – young women and men are concerned, too – fat deposits can lead to obstructions of respiratory tracts. By this,

- the air flow is increased
- the vibration of the soft parts is increased
- the noise of snoring is louder.

Taking special medication – sleeping pills, too –, fat food and alcohol at night will increase snoring and its loudness.

## Snoring causes health problems

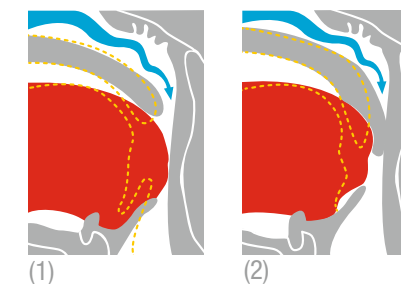


- Stage 1** Falling asleep (5-10 % of total sleep)
- Stage 2** Transition to deep sleep (50 % of total sleep)
- Stage 3/4** Deep sleep (20 % of total sleep)
- REM-Sleep** Sleep Phase of dreaming (approx. 20-25 % of total sleep)

Source: ZTV Zahnärztlicher Fachverlag GmbH, Prof. Dr. Rolf Hinz

In a first step, you can find out on your own which group you or your partner belong to.

Just answer the questions on the reverse – your dentist will be happy to analyze the results together with you.



Obstruction of respiratory tracts by relaxed muscles of the tongue (1) and the soft palate (2) during sleep.

If you snore and have trouble breathing with temporary stops of breathing of at least 10 seconds more than 5 times per hour, **sleep apnea** is diagnosed.

If your breathing air flow is reduced by at least half of the initial value within 10 seconds while snoring, sleep hypopnea is diagnosed.

An “obstructive sleep apnea” (i.e. the temporary total obstruction of the respiratory tracts) considerably reduces the oxygen supply to the brain. Wakening reactions will interrupt sleep – unnoticed by the sleeper. Damages to health are almost inevitable:

- the cardiovascular system is stressed considerably
- the blood pressure increases
- the risk of suffering from a heart attack and stroke is high
- nightly deviations of the cardiac rhythm occur
- depressive mood, listlessness and tiredness during the day are the consequences

**The seriousness of sleep-related breathing disorders can only be diagnosed by sleep physicians. He or she will decide which therapy to choose.**

**In moderate cases the dentist can help you with an “Intraoral Snoring Therapy Appliance”, e.g. the IST® splint.**