



Stop Caries NOW for a Cavity-Free Future
European Chapter

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FACT SHEET: ABOUT DENTAL CARIES

What is dental caries?

- **Dental caries** is the term used by healthcare and dental professionals for **tooth decay**.
- In Europe, almost all adults have experienced dental caries¹ which, if left untreated at the early stages, can progress to cavities. However, most of us aren't aware that the early stages of damage can be stopped or reversed.
- Research shows²⁻⁴ that dental caries occur across a series of stages, or a 'continuum' of disease which need different types of care. The three main stages are:
 - **Initial-stage:** the first visible changes due to decay seen in the outer covering (enamel) of clean dry teeth by a dental professional. These stages can be controlled and potentially reversed with changes to diet and personal dental hygiene practices, supplemented by fluorides.
 - **Moderate-stage:** changes seen by the dentist as either localised breakdown of the surface enamel or an underlying dark shadow from the inner dentine. Some of these lesions can be controlled by more intensive preventive treatments and homecare, whilst others may require tooth-preserving fillings.
 - **Extensive-stage:** these are seen by the dentist as a distinct physical cavity with visible internal dentine. These lesions are likely to require tooth-preserving fillings as well as preventive control of the underlying disease factors.
- Movement to the next stage is NOT inevitable. The initial stages of the disease can be stopped and may be reversed. Disease progression is preventable.
- In Europe, the total spend on dental health each year is in the region of €40 billion and around 66% of these costs relate to treating dental caries and its consequences.⁵
- In Europe, the number of people with dental caries is falling. But 80% of cases are found in just 20% of the population.⁶

How does dental caries occur?

- When we eat or drink, sugars are converted to harmful acids by bacteria in our mouth. These acids, produced in the plaque or "bio-film" which builds up on our teeth, attack the outer surface of the tooth, the enamel.



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- Within the “bio-film” the health and disease system is in a constant state of flux. Over time, if more tooth mineral is lost from the tooth than is replaced, then dental caries will start or advance. But if more tooth mineral is replaced rather than lost, then dental caries will not develop, or if an early “lesion” has started, this may stop progressing – or may even reverse.

How can dental caries be prevented and controlled?

- Initial dental caries lesions, which appear to the dentist as white spots on the enamel where the tooth has started to weaken, can be identified by a dental health professional and managed by good oral hygiene with effective and clinically proven products and by avoiding the frequent intake of sugary snacks or drinks.
- More extensive dental caries lesions, at later stages of the continuum (including obvious cavities), may require more invasive treatments including fillings and tooth extraction.

What is the dental caries landscape in Europe?

- Only 41% of Europeans still have all their natural teeth.⁷
- Many Europeans still do not know how to follow routine oral hygiene practices, such as using fluoride-containing toothpaste, mouthwashes, inter-dental cleaning and getting regular dental check-ups.⁷
- Without fluoride prevention, lifelong treatment for dental caries on average is almost €7,000.⁸
- Dental caries remains a major problem, especially in Eastern Europe and in socio-economically deprived groups in Europe.⁹
- Around the world, children miss 51 million hours of school each year because of dental caries.⁹
- In the UK, dental caries was the fourth most common reason children were admitted to hospital in 2012.¹⁰
- Across Europe, by the time children reach 12 years old, the number of obviously decayed, missing or filled teeth differs across countries.¹¹
- In some parts of Europe, the level of tooth decay is five times higher than in others.⁵



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