

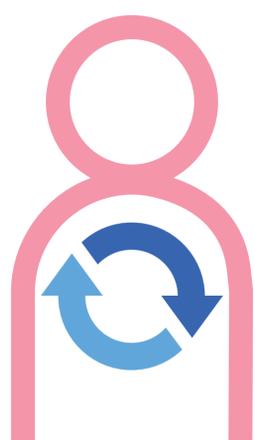


## People with periodontitis are likely to develop diabetes mellitus – and vice versa

### Diabetes mellitus

**Diabetes mellitus** is defined by **hyperglycaemia** and has two major forms.

**Type 1 diabetes mellitus** results from a lack of insulin because of an **autoimmune reaction in the pancreas**, whereas **type 2 diabetes mellitus** occurs as a consequence of **insulin resistance associated with chronically high blood-sugar levels**.



### Periodontitis

**Periodontitis** is a common chronic inflammatory disease in humans, and it is defined by the **damage of tooth-supporting structures caused by inflammation** eventually leading to tooth loss.

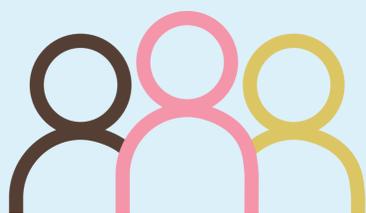
Periodontitis is initiated by the **pathogenic dental-plaque biofilm** above and below the gum margin.

Patients with diabetes mellitus show a high prevalence of periodontitis.

Patients with periodontitis are more likely to develop type 2 diabetes mellitus.



## Periodontitis and diabetes mellitus are both widespread conditions among the world's population



### Diabetes mellitus

Approx. 415 million people

Prevalence: constantly rising



### Periodontitis

Western countries, more than 50% of the population

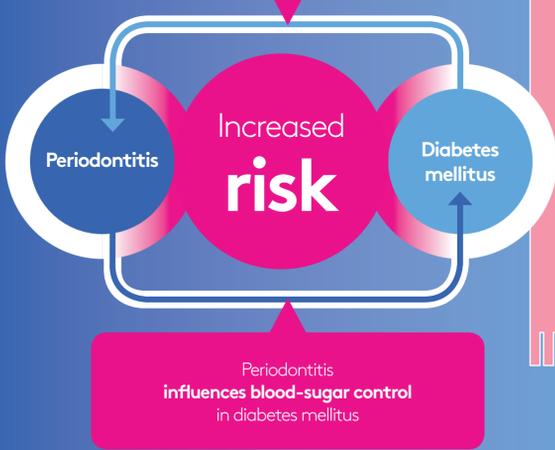
750

Prevalence: 750 million people around the world with severe forms

## Periodontitis and diabetes mellitus, a two-way relationship

What happens when you have **periodontitis and diabetes at the same time**

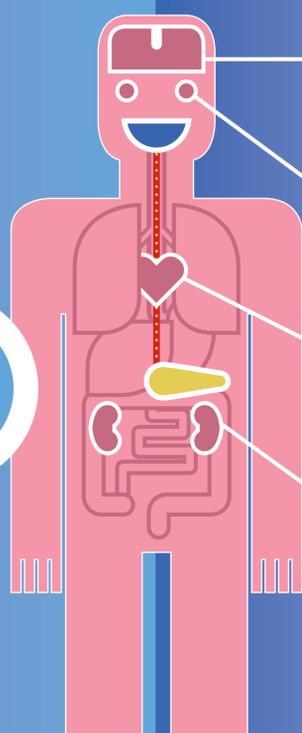
Diabetes mellitus increases prevalence, progression, and severity of periodontitis



Periodontitis influences blood-sugar control in diabetes mellitus

### Complications of diabetes

- Stroke**  
Higher rate of cerebrovascular complications.
- Retinopathy**  
Increased risk for larger retinal venular diameter and general diabetes-associated retinopathy.
- Cardiovascular complications**  
Increased risk for coronary heart disease and dying from a heart attack (22% in 10 years).
- Kidney failure and macroalbuminuria**  
Increased all-cause mortality risk (41% in 10 years).



## Periodontitis & diabetes mellitus general facts

- Diabetes and periodontitis are **chronic non-communicable diseases**, whose prevalence increases with age.
- There is a **bidirectional (two-way) relationship** between periodontitis and diabetes.
- If untreated, periodontitis causes **tooth loss**.
- Periodontitis is **easily diagnosed and clinically controlled**. With regular high-quality supportive treatment, clinical results can be maintained.
- People with sub-optimally controlled diabetes (both type 1 and 2) suffer from increased **inflammation/destruction/breakdown**.
- People with periodontitis **have an elevated risk** of pre-diabetes or developing type 2 diabetes.
- People with both diabetes and periodontitis have a **greater likelihood of more severe medical complications** (affecting eyes and kidneys) and **even death** than people with diabetes alone.
- Periodontal treatment in people with diabetes **results in a significant reduction in glycated haemoglobin (HbA1c) levels** three months after periodontal therapy, with emerging evidence available also for six months.
- Early diagnosis, prevention and co-management (dentists and physicians)** of both diabetes and periodontitis is of utmost importance.
- Successful periodontal treatment has a **clinically significant effect on general health** and should have a place in the treatment of people with diabetes.

## Take care of your gums, control diabetes.



visit your doctor regularly



visit your dentist regularly



control your diabetes



clean your teeth twice a day



watch your weight



eat healthy foods, do not smoke