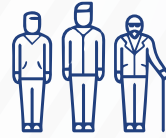


Periodontitis and Cardiovascular Diseases

A mutual association

CVDs are responsible for **17.9 million** (one in three) deaths worldwide



Increasing prevalence with age



In its mild form, periodontitis presents as gingivitis, the inflammation of the gums around the teeth



Severe periodontitis affects about **750 million** across the world

6th most common non-communicable disease among humans



Risk factors

- High blood pressure
- Low physical activity
- High cholesterol
- Obesity
- Old age

Risk factors

- Smoking
- Stress
- Poor oral hygiene
- Nutritional deficiencies
- Hereditary factors
- Systemic diseases

Signs and symptoms

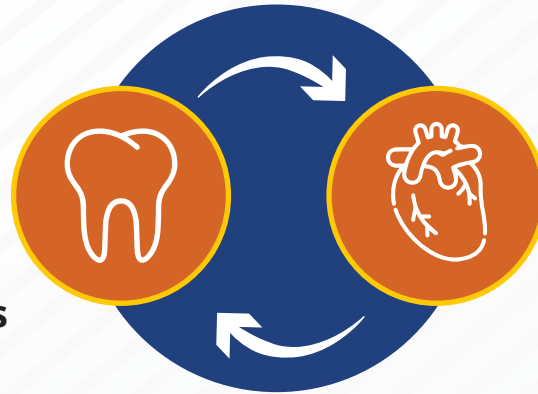
- Red, swollen, tender, or bleeding gums
- Persistent foul taste
- Pain when chewing
- Loose teeth
- Elongated teeth

Both these chronic non-communicable diseases are highly prevalent, and patients with periodontal disease have a higher risk of suffering from serious cardiovascular events like a heart attack or stroke¹

Zardawi, F., Gul, S., Abdulkareem, A., Sha, A., & Yates, J. (2020). Association between periodontal disease and atherosclerotic cardiovascular diseases: revisited. *Frontiers in Cardiovascular Medicine*, 7

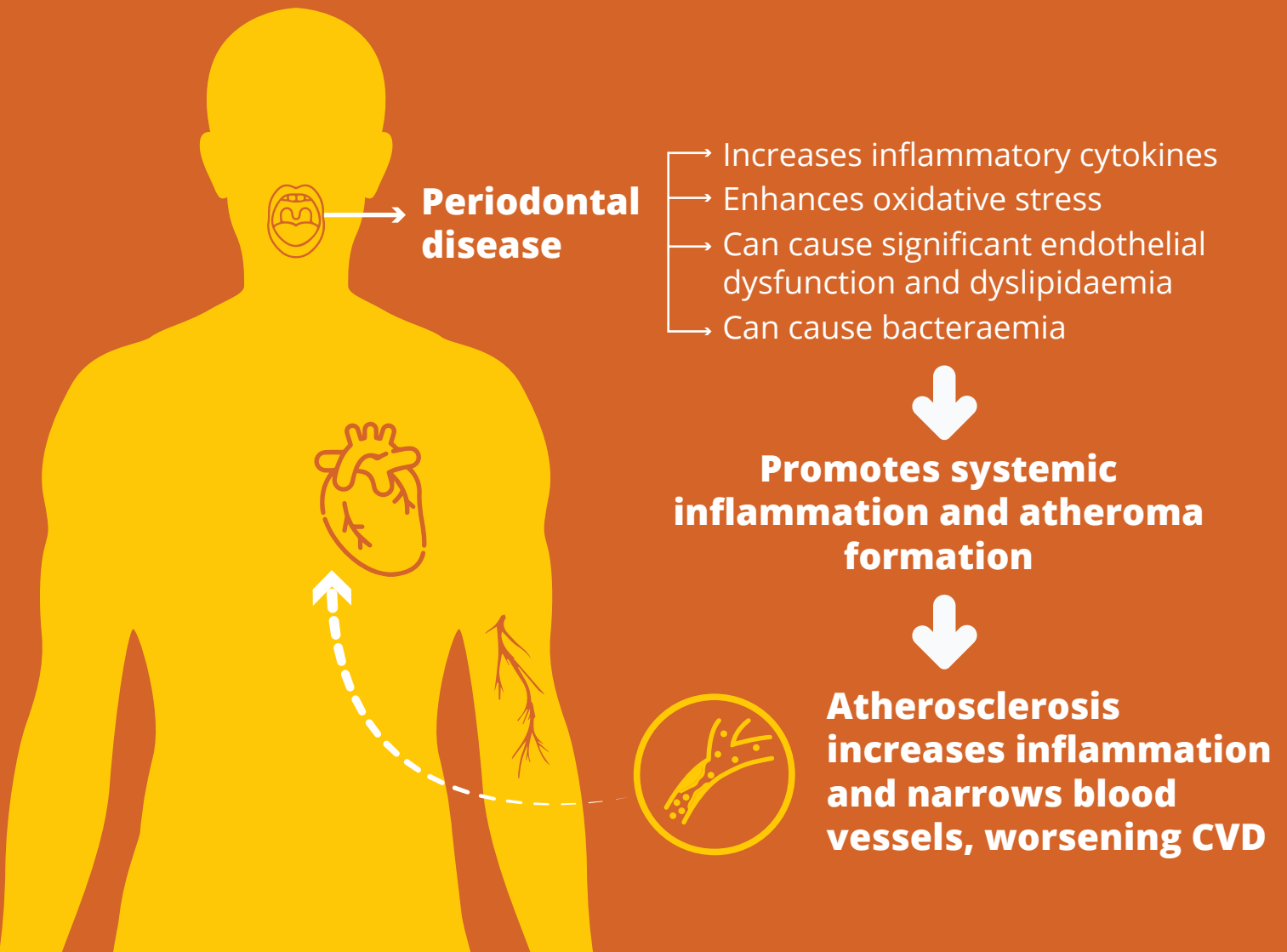
Evidence suggests a mutual association between periodontitis and CVD

Individuals with periodontitis have a higher risk of CVD and complications like stroke and myocardial infarctions



CVD may be a risk factor for the onset and progression of periodontitis

How are periodontitis and CVD linked?



Maintenance of oral health should be a focus for both, oral health practitioners and general physicians



- Oral health issues are an easily modifiable risk factor for CVD
- Can be controlled with regular follow-ups and treatment

Unaddressed oral health problems can:



Aggravate and cause pain in the jaws



Cause spread of infection and bacteraemia



Result in tooth loss and difficulty in speech and mastication, as well as compromised aesthetics



Cause severe medical complications such as pneumonia



Increase CVD risk

Both oral health care practitioners and physicians should:



Educate patients regarding the link between oral and overall health



Encourage dental hygiene practices among patients



Encourage regular follow-ups, both dental and medical



Recommendations for oral health care practitioners

- ✓ Ensure that you take a thorough medical history of any new patient
- ✓ Update medical records of older patients periodically
- ✓ For patients with CVD, ensure regular periodontal examinations, maintenance, and treatment as required
- ✓ In patients with extensive tooth loss, recommend dental rehabilitation

Take adequate precautions while treating patients with CVD:

- ✓ While antibiotic prophylaxis against infective endocarditis is not recommended routinely, antibiotics may be prescribed for patients with a prior history of endocarditis if the procedure is invasive and requires them
- ✓ Check blood pressure of patients prior to long treatment
- ✓ Ensure treatment and medical compliance



Recommendations for physicians

- ✓ Enquire about any previous oral health problems or history
- ✓ Provide a referral for a periodontal examination in cases of newly diagnosed CVD
- ✓ Liaise with dental surgeons for the periodontal management of patients with CVD on anticoagulant/anti-platelet therapy

Content adapted from:

Park, S. Y., Kim, S. H., Kang, S. H., Yoon, C. H., Lee, H. J., Yun, P. Y., ... & Chae, I. H. (2019). Improved oral hygiene care attenuates the cardiovascular risk of oral health disease: a population-based study from Korea. *European heart journal*, 40(14), 1138-1145

