

GLOBAL REPORT PUBLISHED ON LINKS BETWEEN PERIODONTAL AND CARDIOVASCULAR DISEASES

‘Severe periodontitis is independently and significantly associated with cardiovascular disease.’

There is strong epidemiological evidence that periodontitis causes an increased risk for future atherosclerotic cardiovascular disease.

Patients with periodontitis should be advised that they have a higher risk of suffering cardiovascular diseases – including myocardial infarction and stroke – and that they should actively manage risk factors (such as smoking, lack of exercise, excess weight, blood pressure, and a diet high in saturated fats and refined sugars).

On top of that, patients who have both periodontitis and cardiovascular disease should be informed that they may be at higher risk of suffering subsequent cardiovascular complications and that they should therefore stick to recommended dental regimes of prevention, treatment, and maintenance.

These are among the highlights of the consensus report from an expert workshop on the links between periodontal and cardiovascular diseases, organised jointly by the European Federation of Periodontology (EFP) and the World Heart Federation (WHF).

The consensus article, published on 3 February 2020 in the two federations’ respective scientific publications – the *Journal of Clinical Periodontology and Global Heart* – came out of the Perio-Cardio Workshop held in Madrid in February 2019. This workshop brought together more than 20 experts from the two organisations to consider the latest evidence about the associations between periodontal and cardiovascular diseases and to draft a series of recommendations on prevention and therapy.

Both cardiovascular disease and periodontitis are chronic non-communicable diseases. Periodontitis has

an overall global prevalence of 45-50% and its severe form affects 11.2% of the world’s population, making it the sixth most common human disease. Cardiovascular disease is responsible for 17.9 million deaths per year worldwide (one third of all deaths), including 3.9 million in Europe (45% of all deaths), with ischaemic heart disease, stroke, and hypertension leading to heart failure the main causes. Although mortality rates are falling, the absolute numbers have increased over the last 25 years because of an increasingly ageing population.

The percentage of deaths from cardiovascular disease is higher in Europe not only because of an ageing population but also because of risk factors associated with a ‘Western’ lifestyle, such as poor diet (high in saturated fats, salt, and refined sugar), obesity, smoking, and lack of exercise. Some of these are also lifestyle risk factors for periodontal disease. In addition, the report highlights shared genetic risk factors for the two diseases.

The report states that severe periodontitis is independently and significantly associated with cardiovascular disease from all causes and with cardiovascular mortality in various populations. Proposed mechanisms to explain this association include bacteraemia and the associated systemic inflammatory sequelae, including elevations in C-reactive protein and oxidative stress.

Dental team recommendations

The Perio-Cardio Workshop produced a series of recommendations for oral health professionals to use in the dental practice with people with cardiovascular disease, for physicians and other medics

to use in cardiology practice, and for patients with cardiovascular disease. The workshop also reviewed the potential risk and complications of periodontal therapy in patients who are on anti-thrombotic medication and the report provides detailed recommendations in this area.

The consensus report was based on four technical papers that systematically reviewed the evidence for epidemiological associations between periodontitis and incident CVD, mechanisms of biological plausibility relating to periodontal bacteria and systemic inflammation (two reviews), and periodontal intervention studies.

The Perio-Cardio Workshop built on and updated the pioneering work of the IX European Workshop on Periodontology, a joint workshop of the EFP and the American Academy of Periodontology that was held in 2012, which explored the links between periodontitis and systemic conditions including cardiovascular diseases.

The EFP will now take the findings of the Perio-Cardio Workshop, as expressed in the consensus report, to create an outreach campaign on periodontal and cardiovascular health which will provide specific materials to dental professionals, physicians, and patients who visit both dental and medical practices.

This campaign, like the Perio-Cardio Workshop, will be sponsored by DENTAID, which is an EFP partner. It is due to be launched in April 2020.