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EuroPerio9 press release

Elite athletes' performance negatively impacted by oral disease**Oral health should be an integral part of sports medicine**

Amsterdam, NETHERLANDS. 21 June 2018 – A cross-sectional study presented today at EuroPerio9, the world's leading congress in periodontology and implant dentistry, found that elite athletes have significant levels of periodontal disease, with one third reporting that poor oral health impacted their performance negatively (1).

Previous studies (2, 3) conducted with Olympic athletes and professional football players in the UK had already indicated that poor oral health is common among elite athletes and associated with negative self-reported impacts on wellbeing, training and performance.

Lead author Ian Needleman, Professor of Periodontology and Evidence-informed Healthcare at UCL Eastman Dental Institute, London, UK, said: "Our aim was to conduct a methodologically robust study of oral health and associated self-reported impacts in order to see if previous results were representative of athletes. Interestingly, the current study carried out by a single trained and calibrated examiner using validated outcome measures, showed very similar results to prior research."

This cross sectional study* conducted in 2016 prior to the Summer Olympics in Rio, included 325 athletes from different sports including athletics, rugby and football. The mean age of athletes who took part in the study was 25 years (range 18-29) and 67% of respondents were male.

Overall, 32% of athletes reported an oral health impact on sport performance. Other impacts reported were difficulty with eating (34.6%), difficulty sleeping or relaxing (15.1%) and negative effects on smiling and self-confidence (17.2%). Only 1.1% of the sample was found to be in "excellent" periodontal health, with 87.5% of athletes presenting half the mouth affected by gingivitis* and 21.6% presenting periodontitis**. Also, 39% of athletes reported bleeding gums while cleaning their teeth (a sign of inflammation).

Regarding the results, Prof Needleman said: "Interestingly, 97% of the athletes that took part in this study said that they brushed their teeth twice a day and 40% said they cleaned between their teeth once a day. Compared to the results of the most recent national oral health survey in Great Britain (4) where 75% of people said they cleaned teeth twice a day and 21% reported use of dental floss, athletes seem to be more health conscious and have better oral hygiene habits than the general population. What is striking is that even though they report good dental hygiene, elite athletes still present oral health issues and their periodontal health is not improved."

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Regarding the possible causes for the higher risk of oral diseases in athletes, including gum disease, Prof Needleman said: “Is it plausible that athletes and their teams may have lower awareness and prioritisation of oral health. Also, nutrition in sports is heavily reliant on frequent carbohydrate intakes, which are known to increase inflammation in the body and gum tissues. Another cause may be that in sports where there is a lot of airflow (such as cycling and running) breathing hard can make the mouth dry so teeth lose the protective benefits of saliva. There is existing evidence of lower quality of saliva with intensive training. Stress is also clearly a risk factor: for example, an athlete reported vomiting before every race caused by pre competition anxiety.”

Prof Needleman is developing a study on effective behaviour change interventions. “In the ongoing study we measure the potential for behaviour change: what athletes felt they could or could not change (data not yet published). We will be testing ways for athletes and their teams to fit oral health routines into their lives and training schedules. We also aim to understand how personal behaviour can be influenced by the team so that we can come up with recommendations common to the whole team, as well as with personalised advice.”

“We know that oral diseases are preventable by simple interventions: raising awareness and motivation to maintain good oral health, brushing teeth, regularly cleaning between teeth, healthy nutrition and regular dental check ups. In elite athletes where erosion of teeth and caries are highly prevalent, additional strategies such as use of high fluoride toothpaste could be beneficial,” said Needleman.

“In general, we have good evidence that oral health, including periodontal health, is important for quality of life and overall health. Clearly, physical activity is a good thing for physical and mental health. However, for athletes, we now have consistent evidence that oral health affects self-reported athletic performance. It is important to create awareness about the impact of oral health on elite sport and about the simple preventive measures that can reduce risk factors and improve performance. Oral health needs to be part of well developed sports medicine.”

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Notes to Editors

* Cross sectional study: type of observational study that analyses data from a population (or representative subset) at a specific point in time.

** Gingivitis: is the mildest form of gum disease. It is the inflammation of the gum around the base of the teeth (gingiva) in response to plaque attached to tooth surfaces. Gingivitis may lead to periodontitis.

*** Periodontitis: a serious gum inflammation that damages soft tissue and destroys the bone that supports teeth. It can lead to tooth loss. Periodontitis is usually the result of poor oral hygiene and is largely preventable with good habits such as brushing teeth twice a day and cleaning regularly between the teeth

References:

1. EuroPerio9 Abstract PD125, Periodontal health of UK elite athletes and impact on performance, Prof Ian Needleman, UCL Eastman Dental Institute, UK. Abstract presented in Session “Oral and periodontal medicine” on 21 June 2018 at 12:30.
2. Needleman, Ian et al (2014). Oral health and elite sport performance. British Journal of Sports Medicine 49(1). September 2014. DOI: 10.1136/bjsports-2014-093804
3. Needleman, Ian, et al (2015). Poor oral health including active caries in 187 UK professional male football players: clinical dental examination performed by dentists. British Journal of Sports Medicine. 50. bjsports-2015. 10.1136/bjsports-2015-094953.

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4. [Chadwick B](#), White D, Larder D & Pitts N. 5. Preventive behaviour and risks to oral health – a report from the Adult Dental Health Survey 2009. The Health and Social Care Information Centre.
<http://digital.nhs.uk/catalogue/PUB01086>

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[About the EFP](#)

The European Federation of Periodontology (EFP) is an umbrella organisation of 30 national scientific societies devoted to promoting research, education and awareness of periodontal science and practice. It represents more than 14,000 periodontists and gum-health professionals from Europe, northern Africa, and the Middle East.

[About EuroPerio9](#)

EuroPerio is the world's biggest scientific meeting devoted to periodontology. The most recent of these triennial meetings, EuroPerio8, took place in London in June 2015 and brought together almost 10,000 people. EuroPerio9 will take place from 20 to 23 June 2018 at the [RAI](#), Amsterdam, The Netherlands.

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