# OTHER JOURNALS IN BRIEF

A selection of abstracts of clinically relevant papers from other journals.
The abstracts on this page have been chosen and edited by John R. Radford.

## HPV VACCINATION

### HPV vaccination not linked to multiple sclerosis

Tanday S. *Lancet Oncol* 2015; **16:** e57

**'...patients should not fear demyelinating diseases as a result of HPV vaccination.'**

The age distribution of non-smoking, non-drinking females with oral squamous cell carcinoma 'correlates with the recent trend towards HPV-related tumours in younger patients' (*Int J Oral Maxillofac Surg* 2013; **42:** 929–933). It has not been shown, however, that HPV vaccination prevents oropharyngeal cancer (*Lancet Infect Dis* 2012; **12:** 82–83). This *News Item* reported on the substantive paper (see *JAMA* 2015; **313:** 54–61) examining the link between HPV vaccination and multiple sclerosis and other demyelinating diseases. Such a putative association has been increasingly reported in the medical literature 'fuelled by social and news media'. This study looked at almost four million Danish and Swedish women, of whom 789,082 were vaccinated with the quadrivalent vaccine. The crude incidence rates were 6·12 events/100,000 person-years for the vaccinated and 21·54 events/100,000 person-years for the unvaccinated period. The adjusted rate ratio was 0.90 [95% CI 0.70–1.15]. A rate ratio of 1.00 indicates no difference, whereas a rate ratio of 2.00 indicates a doubling of risk

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## HPV VACCINATION

### Population-level impact and herd effects following human papillomavirus vaccination programmes: a systematic review and meta-analysis

Drolet M, Bénard E *et al. Lancet Infect Dis* 2015; **15:** 565–580

**What is the efficacy of HPV vaccination?**

As background, 1) most high-income countries use the quadrivalent vaccine (GARDASIL® – as used in the UK from September 2012) which targets both HPV types 16 and 18 that are associated with 70-80% of cervical cancers, and HPV types 6 and 11 that are associated with 85-95% of anogenital warts; 2) the bivalent vaccine (Cervarix™) targets only HPV types 16 and 18; and 3) HPV vaccination programmes are directed at girls, but have recently included boys in the USA and Australia. In 2007, the first HPV vaccination programmes began. This systematic review and meta-analysis examined the effect of both the HPV vaccines on markers of infection. The investigators identified 20 eligible studies, representing more than 140 million person-years. When female vaccination coverage exceeded 50% only (almost 90% girl coverage in England 2013-14), the percentage differences between pre- and post-vaccination were: 1) HPV type 16 and 18 infections decreased significantly by 68% in girls, 2) anogenital warts decreased significantly by 61% in girls, and 3) significant reductions in anogenital warts in boys and in women suggesting herd effects.

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## SUCKING AND HABITS

### Oral Habits – Part 1: The dental effects and management of nutritive and non-nutritive sucking

Silva M, Manton D. *J Dent Child (Chic)* 2014; **81:** 133–139

### Oral Habits – Part 2: Beyond nutritive and non-nutritive sucking

Silva M, Manton D. *J Dent Child (Chic)* 2014; **81:** 140–146

**According to Moss' functional matrix theory, changes in dento-alveolar growth are caused by orofacial function; alternatively 'habit' may be an adaptation to growth.**

These two related papers explore the effects of sucking and other habits, on the orofacial structures of children.

Both nutritive and non-nutritive sucking can be associated with a child showing an anterior open bite and posterior crossbite. Breastfeeding may be associated with a less severe malocclusion compared with sucking a nursing bottle. The teat of the nursing bottle displaces the tongue anteriorly, and the teat is sucked with a 'pistonlike' action.

Ideally, non-nutritive sucking should stop by 3 years of age when any malocclusion will resolve spontaneously; if non-nutritive sucking extends beyond six years of age, spontaneous correction is unlikely. Sucking a pacifier, with its classical symmetrical open bite, has a greater impact on the occlusion than digit sucking. If rewards and positive reinforcement, tastants and thumb guards fail, there are several corrective appliances; but rakes and spurs belong to a bygone age. An intriguing appliance is the Bluegrass appliance. This contains a distractive toy such as a bead that can be rolled by the tongue. Of note, the use of pacifiers facilitate more rapid transition to oral feeding in pre-term infants. They are also associated with decreased risk of sudden infant death syndrome.

Several factors may be associated with persistence of tongue thrusting (an immature swallowing pattern), such as enlarged tonsils, use of pacifiers, and learning difficulties. Exercises may raise awareness and avoidance of the habit.

Self-injurious behaviour of the oral tissues is managed as following: if minor, then psychological counselling, but for those with learning disabilities, then a pharmacological approach may be more appropriate. Only when it is carried out 'unknowingly' and is severe such as those with Lesch-Nyhan syndrome, should extraction of teeth be considered.

Nasal breathing is associated with the classical adenoid facies (including mandibular retrusion, increased anterior facial height, narrowing of the nostrils and lip incompetence). Again, nasal breathing could either be the cause or as a consequence of the craniofacial abnormalities. Treatment would appear to range from invasive intervention, to prevention of dental diseases associated with 'increased evaporation of saliva and drying of the mouth'.

The cause and management of bruxism in children would appear to be as imprecise as it is for adults. Bruxism has been reported in children with cerebral palsy.

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