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Tongue-tie: ankyloglossia

Bandolier www.jr2.ox.ac.uk/bandolier/band124/b124-2.html

Bandolier's website has a new short summary of the evidence available on "tongue tie" or ankyloglossia, the congenital oral anomaly characterised by an unusually short lingum frenulum on the underside of the tongue. This condition can cause difficulties with breastfeeding and speech, and other problems in children and adults including inability to lick the lips, play a wind instrument, or even with kissing. Opinions vary as to its significance.

A PubMed search over the past 10 years produced a limited number of papers, showing a prevalence for the condition in the range of 1.7–4.8%. Restriction of tongue movement because of a short lingum frenulum can affect breastfeeding and make feeding difficult for the infant and painful for the mother. Untreated ankyloglossia can lead to more breastfeeding problems: in a small study, 25% of mothers of affected infants reported nipple pain compared with 3% in the control group. In a small case series of 36 mother–infant pairs after frenectomy, most reported normal range of motion of tongue with complete or partial resolution of feeding problems by 1 week, and all by 3 months. A larger and more detailed case series came to similar conclusions.

Two recent but small uncontrolled studies showed that surgery improved tongue protrusion and elevation in children with ankyloglossia who were aged 1–12 years. Nine out of 15 children who had preoperative speech problems improved after operation. In older children and adults with ankyloglossia, tongue protrusion and elevation were markedly less than in 20 controls, with surgery improving tongue protrusion and elevation by an average of 9 and 13 mm, respectively.

There is surprisingly little good information on this topic despite it affecting one to four babies in every 100. There are no controlled trials in infants, and not much data about problems with older children or adults. In the main this appears to be one of those areas where there is much opinion but little evidence.

Heated, humidified air for the common cold

Singh M.

Heated, humidified air for the common cold (Cochrane Review). In the Cochrane Library. Chichester: John Wiley; 2004, issue 2

This review addresses the use of hot, humid air for the treatment of the common cold by comparing symptoms, viral shedding and nasal resistance after a natural or experimentally induced common cold. The review includes six trials with 319 participants. Three trials demonstrated beneficial effects on the symptoms of the common cold (odds ratio, 0.31; 95% confidence interval, 0.16–0.60; relative risk, 0.56; 95% confidence interval, 0.40–0.79). One study from Israel showed a decrease in nasal resistance measured by peak nasal expiratory and inspiratory flow rate, whereas studies conducted in North America failed to show any objective improvement in outcome measures with the study intervention. A multicentre double-blind randomised controlled trial testing this therapy with uniform outcome measures is recommended to see if mother's therapy for heavy colds really is effective.

Link between diagnostic X-rays and cancer uncertain

Cameron J.R.

Evidence-based Healthcare 2004; 8:205–206. A commentary on: Berrington de González A, Darby S. Risk of cancer from diagnostic X-rays: estimates for the UK and 14 other countries. Lancet 2004; 363:345–351

The original article on which this commentary is written summarises doses to patients from diagnostic X-rays in 15 countries, and estimates that X-ray doses in the US induce 5695 cancers each year or 0.9% of all cancer cases. The estimated risk in Japan was more than threefold higher.

The main results from the article were that by the age of 75 years, the cumulative risks of cancer resulting from diagnostic X-rays were estimated to be between 0.6% (in the UK and Poland) and 3.2% (Japan). In all other populations the estimated risk was between 0.7 and 1.8%. The UK risk correlates to 700 cases per year including 111 bladder cancers, 107 colon cancers and 61 lung cancers. The article caused great alarm in the US as the authors state, "The possibility that we have overestimated the risks cannot be ruled out, but that we have underestimated them seems unlikely."

Table 1. Summary of studies' results.

	Vegetable studies		Fruit studies	
	Case-control	Cohort	Case-control	Cohort
Mouth and pharynx	NS	Questionable	Reduction	Questionable
Larynx	NS	Questionable	Reduction	Questionable
Oesophagus	Reduction	Questionable	Reduction	Questionable
Breast	Reduction	NS	NS	NS
Lung	Reduction	NS	Reduction	Reduction
Bladder	NS	NS	Reduction	Reduction
Stomach	Reduction	NS	Reduction	NS
Colo-rectal	Reduction	NS	Reduction	NS

NS, No significant reduction in risk; reduction, significant reduction in risk; questionable, no difference observed.

Cameron doubts that medical use of X-rays in the US or Japan causes any cancers, citing a wide range of evidence to support his position. The commentary concludes that, "We should not be careless with radiation but we should avoid scaring patients and radiologists with undocumented risks."

Fruit and vegetable intake and cancer risk

www.jr2.ox.ac.uk/bandolier/booth/hliving/FVca.html

Bandolier summarises a recent systematic review¹ looking at case-control and cohort studies of fruit and vegetable intake and cancer risk. The review covers the period from 1973 until 2001, and assesses the risk for each 100-g daily intake increase in intake.

For most cancer sites, case-control studies found evidence of a significant risk reduction with increased amounts of both fruits and vegetables in the diet (Table 1). Cohort studies, in contrast, were more often associated with a non-significant risk reduction. The best interpretation is that there is some protection against cancer from diets that are rich in fruits and vegetables. To minimise cancer risk, though, all modifiable factors should be addressed. The most important is smoking, but other risk factors are involved.

1. Riboli E, Norat T. Epidemiologic evidence of the protective effect of fruit and vegetables on cancer risk. *Am J Clin Nutr* 2003; 78 (Suppl 3):S559-S569.

Audit and feedback can be effective in improving professional practice

Jamtvedt G, Young JM, Kristoffersen DT, Thomson O'Brien MA, Oxman AD.

Audit and feedback: effects on professional practice and health care outcomes (Cochrane Review). In the Cochrane Library 2004; Issue 4. Chichester: John Wiley
www.cochrane.org/cochrane/revabstr/AB000259.htm

This Cochrane review assessed the effects of audit and feedback on the practice of healthcare professionals and patient outcomes. Audit and feedback continues to be widely used as a strategy to improve professional practice, but it has not been found to be consistently effective. The review looked at randomised controlled trials that reported on objectively measured professional practice in a healthcare setting or on healthcare outcomes.

Eighty-five studies were included, 48 having been added since the previous version of this review. There were 52 comparisons of dichotomous outcomes from 47 trials, involving over 3500 health professionals, which compared audit and feedback to no intervention.

The reviewers concluded that audit and feedback could be effective in improving professional practice. When it is effective, the effects are generally small to moderate. The absolute effects of audit and feedback are likely to be larger when baseline adherence to recommended practice is low.

Moderate evidence to suggest that back schools reduce pain

Heymans MW, van Tulder MW, Esmail R, Bombardier C, Koes BW.

Back schools for non-specific low-back pain (Cochrane Review). In the Cochrane Library 2004; Issue 4. Chichester: John Wiley
www.cochrane.org/cochrane/revabstr/AB000261.htm

Since the introduction of the Swedish back school in 1969 by Zachrisson-Forsell,¹ back schools have frequently been used for treating patients who have low-back pain (LBP). The content of classes at back schools has changed since their inception, however, and appears to vary widely today.

This Cochrane review assesses the effectiveness of back schools for patients who have nonspecific LBP. The data identified were clinically and statistically too heterogeneous to perform a meta-analysis, so the results were summarised qualitatively. The evidence was classified into four levels (strong, moderate, limited or no evidence), taking into account the methodological quality of the studies. The reviewers also evaluated the clinical relevance of the studies.

Nineteen randomised controlled trials, which included 3584 patients, were selected. The reviewers concluded that there is moderate evidence to suggest that back schools, in an occupational setting, reduce pain and improve function and return-to-work status. This is the case in the short and intermediate-term and when compared with exercises, manipulation, myofascial therapy, advice, placebo or waiting list controls, and when patients have chronic and recurrent LBP. Future trials still need to improve upon current methodological quality and clinical relevance and should evaluate the cost-effectiveness of back schools.

1. Zachrisson-Forsell M. The Swedish back school. *Physiotherapy* 1980; 66: 112-114.

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