IN BRIEF

- The inaccurate historical association between teething and significant morbidity and mortality
- The features that are currently accepted to be associated with teething
- The symptoms and signs that are unrelated to teething, which necessitate referral to a physician
- Advice which can be given to parents about current methods of teething pain-relief, including conventional pharmacological and 'alternative' holistic methods

Teething troubles?

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The relationship between the eruption of the deciduous teeth and the general health of infants has been documented for over 5,000 years. A variety of physical disturbances (anything from minor upsets to potentially fatal illnesses) have historically been attributed to teething, however a number of recent publications have alluded to a clarification of some of the disputed features of teething. It is now accepted that the localised symptoms of teething vary between individuals, however, 'teething' continues to be an inappropriate diagnosis proffered by both healthcare professionals and lay people. Severe systemic upsets are unrelated to teething and, if present, the infant should be promptly referred to a physician for an accurate diagnosis and appropriate treatment. The treatment modalities used in teething have been diverse throughout the ages, frequently depending on the tenets of the medical profession and lay people, but now principally involve pain relief. This article examines the signs and symptoms frequently attributed to teething and their possible alternative causes. The contemporary principles of the management of teething are discussed, including supportive measures, the diverse range of available topical and systemic pharmacological preparations and the 'alternative' holistic therapies.

The appearance of an infant's first tooth is regarded by most parents as one of a series of significant developmental landmarks, and an 'old wives' tale' regards its precocious eruption as a sign of great intelligence. Anecdotally however, the period associated with the eruption of the deciduous teeth in infants can be difficult and distressing for both the child and their respective parents. The signs and symptoms that are assumed to be caused by teething are outlined in Table 1. The enigma of teething is, at least, in part historical even though many unexplained teething myths continue to pervade contemporary child health. This article examines the features of teething and the historical and contemporary principles of the management of teething.

HISTORICAL PERSPECTIVE

The relationship between the eruption of the deciduous teeth and the general health of infants has been documented for over 5,000 years. Hippocrates, Homer, Celsus and Aristotle are known to have associated teething with significant morbidity.[1] Hippocrates regarded primary tooth eruption as a cause of severe illness, including fever, diarrhoea and convulsions. Since, a number of other conditions have been identified as resulting from teething, as diverse as photophobia, blinking eyes, vomiting, neuralgia, severe head cold, weight loss, toxaemia, tonsillitis, paralysis, cholera, meningitis, tetanus, insanity and even penile discharge.[2] The bourgeois medical profession in the 16th–19th Centuries even regarded teething as being the cause of death in a significant number of infant fatalities. Around one half of all infant deaths in 18th century France were attributed to teething, and teething accounted for 12% of the total deaths in children younger than 4 years old in the *Registrar General's Report* of 1842.[3] Such was the importance of teething as a

Table 1 Signs and symptoms of teething

Pain
Inflammation of the mucous membrane overlying the tooth (possibly with small haemorrhages)
General irritability/malaise
Disturbed sleep/wakefulness
Facial flushing (le feu des dents)/circumoral rash
Drooling/sialorhoea
Gum rubbing/biting/sucking
Bowel upset (ranging from constipation to loose stools and diarrhoea)
Loss of appetite/alteration in volume of fluid intake
Ear rubbing on the same side as the erupting tooth

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Refereed Paper
Received 14.02.01; Accepted 20.07.01

diagnosis, the Latin term *'Dentio difficilis'* was coined, literally meaning difficult dentition, however, the terms pathological dentition, as well as 'teething' *per se* have all been in common use at different historical times. Although any association between teething and life-threatening illnesses would be ridiculed today, the perceived link between the two was the nervous system; the stimulation of trigeminal nerve endings in the mucous membrane resulted in reflex stimulation of other cranial and spinal nerves. The dogma of teething and ill health even continued into the 20th century, Schwartzman (1942),[4] calculating that teething could affect up to 13% of children.

Historical management of teething

The historical management of teething could only be described as barbaric by contemporary standards of clinical practice. Remedies that have been prescribed for teething through the ages have included blistering, bleeding, placing leeches on the gums, and applying cautery to the back of the head![5]

Lancing

Lancing (was introduced by the respected surgeon Ambroise Paré in the 16th century, and rapidly became a skilled technique; no doctor could practice without their elegantly crafted lancet in their waistcoat pocket. The procedure was conducted in the absence of any anaesthesia, generally requiring two incisions crossing at 90° overlying the 'difficult' tooth. Authorities such as John Hunter are known to have regarded the benefits of gum-lancing highly.[6]

Few doctors challenged (or would even contemplate challenging) the rationale for gum-lancing, such was their unquestioning belief in its potentially life-saving effect. Only in the late 19th century did a few sceptics publicly doubt both the rationale and supposed effect of gum-lancing – that of relieving the pressure in ischaemic mucous membrane overlying an incipiently erupting tooth, and the resulting inexorable reflex stimulation of other body tissues.

Surprisingly though, lancing continued to be performed into the 20th century, Moody (1919)[7] reporting a case where convulsions and fever were present. The unfortunate cherub was subjected to the gum-lancet: only returning to normal four hours later!

Systemic medicaments

Systemic medicaments have through the ages been common methods of managing teething, many containing opiates and poisons such as lead acetate, mercurials and bromide. Ironically, many of these compounds are actually causative of the symptoms associated with teething! Antediluvian topical medicaments have included hare's brain, animal milk, butter, a honey/salt mixture and hen's grease.[8]

Alternative non-pharmacological asinine therapies such as dietary changes, emetics and laxatives have all been in favour at some time, even in the absence of any gastrointestinal upset! Primitive peoples have even been known to use a talisman or other phylactery in the prevention and treatment of teething problems.[8]

The decline in teething as a diagnosis and its ensuing 'treatment' occurred when a number of significant diagnostic and therapeutic medical advances were made, laboratory medicine facilitating the accurate diagnosis of many conditions including uncontrolled vomiting, weight loss, septicaemia, tonsillitis, infantile paralysis, cholera, meningitis and tetanus, all of which were previously thought to be caused by teething.

CONTEMPORARY PERSPECTIVE

Although many of the conditions historically thought to result from teething are now accurately diagnosed as specific clinical entities, the enigma of teething continues to endure as a somewhat wastebasket diagnosis, when no cause can be found for a particular sign or symptom.

The Medline (Internet Grateful Med), and CINAHL databases were searched using the key words: 'infant', 'teething', 'symptoms' and 'signs', to identify English language reports of systematic reviews, cohort studies, case-control studies, case series and secondary reviews investigating the symptoms and signs that are associated with teething. Four cohort studies,[1,9–11] four surveys of parents with children around the teething age,[12–16] one case-control study,[17] and one case report[18] were identified.

In addition, two surveys of the opinions of paediatricians regarding teething symptoms[19,20] have been published, whilst one case series[21] investigated 50 children referred to hospital that had been diagnosed as 'teething'. Four secondary reviews were also identified.[3,22–24] Bennett and Brudno (1986)[25] in an 'April fool', reported their cynical viewpoint of investigations of teething symptoms and signs. Qualitative data were abstracted from all the reports and collated, except Bennett and Brudno (1986).[25]

Symptoms

It is now generally accepted, that the eruption of the deciduous teeth is accompanied by a number of relatively minor symptoms (Table 1). General irritability,[1,13,24] disturbed sleep,[24] gum inflammation,[12,15] drooling,[1,13,24] loss of appetite,[1,13] diarrhoea,[20] circumoral rash,[1,13,15,24] intra-oral ulcers,[12,15] an increase in body temperature,[1,10,24] increased biting,[1] gum-rubbing,[1] sucking,[1] wakefulness[1] and ear-rubbing,[1] have all been identified as being temporally related to teething.

Other studies have failed to identify daytime restlessness, diarrhoea, bronchitis, an increase in finger sucking, gum rubbing, drooling and a loss of appetite in teething children,[9,13] whilst Wake *et al.* (2000)[11] could not confirm a strong association between a range of teething symptoms and tooth eruption. Although Macknin *et al.* (2000)[1] identified several symptoms (see above) to be associated with teething, congestion, sleep disturbance, stool looseness, increased stool number, decreased liquid appetite, cough, non-facial rashes, fever and vomiting were not significantly associated with tooth emergence.

One survey[16] found that there is a spectrum of opinions held by parents regarding the teething-associated symptoms. Whilst only one parent in this study believed that teething is not problematical, between 70–85% of parents reported that teething was causally related to fever, pain, irritability, disturbed sleep, biting, drooling and red cheeks. Furthermore, between one-third and one-half of these parents felt that nappy rash, 'sooking', ear pulling, feeding difficulties, a runny nose, loose stools, and infections were related to teething, whereas a few parents related smelly urine, constipation, colic and convulsions to eruptive difficulties.

In a survey of US paediatricians, Honig (1975)[19] found that only 5 of 64 paediatricians believed that irritability, eating problems, wakefulness and rashes were not consequent to teething, and 18 paediatricians thought that fevers of up to 39°C could be caused by teething. Moreover, a *British Medical Journal* editorial in 1975,[26] stated that fever, diarrhoea, rashes, fits, and bronchitis should not be attributed to teething. Paediatricians that diagnose these symptoms and signs as teething were delaying the diagnosis and treatment of pyogenic meningitis, bronchopneumonia, gastroenteritis, urinary tract infections and other serious disorders.

Despite this information, Swann (1979)[21] examined the records of 50 children admitted to hospital with symptoms attributed to teething by either parents or doctors. In 48 of these children, organic causes other than teething, including conditions as diverse as upper respiratory tract infections, febrile convulsions, bronchitis, eczema and meningitis were identified.

Considerable variability exists in the presence or absence of teething-associated symptoms, up to 75% of infants may experience at least one local disturbance

on eruption of the anterior deciduous dentition, the corresponding figure being 100% for the posterior teeth.[12] Carpenter (1978)[14] found that in 120 subjects, during the eruption of the mandibular deciduous central incisor teeth, only 39% exhibited one of several symptoms (fever, vomiting, diarrhoea, drooling, irritability, facial rashes or rhinorrhoea), and of the six children that were followed-up for 6 months or greater; the symptoms disappeared on either the day of, or the day after eruption of the tooth.

Table 2 Management of teething

Teething rings (chilled)
Hard sugar-free teething rusks/bread-sticks/oven-hardened bread
Cucumber (peeled)
Frozen items (anything from ice cubes to frozen bagels, frozen banana, sliced fruit, pretzels, vegetables!)
Pacifier (even frozen)
Rub gums with clean finger, cool spoon, wet gauze
Reassurance
Analgesic/antipyretics (see Table 3)
Topical anaesthetic agents (see Table 3)
Alternative holistic medicine

Does teething cause sytemic upset?

The argument usually levelled against teething as the cause of systemic upset is that infancy, and especially the timing of eruption of the deciduous incisors (6–12 months), coincides with the diminution of the circulating maternal humoral immunity conferred via the placenta, and the establishment of the child's own humoral immunity: most children of this age being relatively susceptible to a myriad of relatively minor infections.

Furthermore, the study reported by King *et al.* (1992)[17] explored the possibility that certain teething symptoms (fever, irritability and eating disturbance) result from an undiagnosed primary herpetic infection, finding that 9 out of 20 infants reported to be 'teething' by one of their parents produced an oral swab positive for herpes simplex virus (HSV). Seven had an elevated temperature, demonstrated signs of an intraoral infection, and had general symptoms indicative of primary herpetic gingivostomatitis. Interestingly, none of the 11 HSV negative subjects demonstrated signs of an oral herpetic infection, although five had elevated temperatures.

An undiagnosed concurrent primary herpetic infection could be responsible for the symptoms of fever, irritability and appetite loss, and that the formation of a gingival crevice around a newly erupting tooth could act as a portal of entry for herpes viruses.[3] This 'portal of entry' theory cannot explain the occurrence of these symptoms in advance of that tooth's emergence into the oral cavity.

The symptoms of elevated temperature and facial rash could be explainable by infection with the Human Herpes Virus 6 (HHV-6) agent, which is ubiquitous among infants of teething age.[3]

Despite the fact that there is disagreement as to which of the signs and symptoms in Table 1 are actually causally related to teething[1] and that several of these features can be explained by alternative non-teething aetiologies, many parents will testify that their children are teething. This is because of the transient nature and close temporal relationship of the features of teething to the pre-, peri-, and post-eruptive period of individual teeth; Macknin *et al.* (2000)[1] finding that teething was associated with an 8 day window: 4 days before, the day of, and 3 days after emergence of the tooth. There is, however, considerable variability between and within individuals as to the presence and severity of any symptoms and signs of teething, and that the symptomatology cannot predict the emergence of tooth.[1]

Pain

Pain is reported as a common feature of teething by parents. It is known that the tooth does not actively contribute to eruption and that the dental follicle is a rich source of eicosanoids, cytokines and growth factors,[27] which could result in a localised inflammatory response, leading to pain. Anecdotally, lay people state that the symptoms of the teething process, in the absence of any visible imminent teeth are caused by 'the tooth coming through the bone'. There is no evidence to support this proposal, and indeed, it is far more plausible that the aetiology of the teething symptoms in this situation are caused by one of the many childhood illnesses.

MANAGEMENT OF TEETHING

The majority of investigations of 'teething' have sought to confirm the presence or absence of associated features. Compara-

Table 3 Teething medicaments

Local anaesthetics	Dentinox Teething Gel® (DDD, Watford), Calgel® (Warner Wellcome, Eastleigh)	Lignocaine hydrochloride 0.33%, cetylpyridinium chloride 0.1%
	Rinstead Teething Gel® (Schering-Plough, Welwyn Garden City)	Lignocaine hydrochloride 0.5%, cetylpyridinium chloride 0.1%
	Woodward's Teething Gel® (LRC, London)	Lignocaine 0.5%, cetylpyridinium chloride 0.025%, ethanol 30%
	Anbesol Teething Gel® (Whitehall laboratories Ltd, Maidenhead)	Lignocaine hydrochloride 0.9%, chlorocresol 0.1%, cetylpyridinium chloride 0.02%
Minor analgesics	Choline Salicylate Dental Gel BP, Bonjela® (Reckitt & Colman Ltd, Kingston upon Hull), Teejel® (Seton healthcare, Oldham)	Choline salicylate 8.7%, cetalkonium chloride 0.01%
Paracetamol based preparations	Paracetamol Oral Suspension	Paracetamol 120mg/5ml
	Infadrops® (Goldshield Pharmaceuticals Ltd, Croydon)	Paracetamol 100mg/1ml
	Calpol Infant (sugar-free available)® (Glaxo Wellcome, Middlesex)	Paracetamol 120mg/5ml
	Disprol infant suspension® (Reckitt & Colman, Kingston upon Hull)	Paracetamol 120mg/5ml
	Panadol Baby and Infant Suspension® Paracetamol 120mg/5ml (Smithkline Beecham plc, Welwyn Garden City)	
	Medinol Under 6® (SSL International plc, Knutsford)	Paracetamol 120mg/5ml
	Medised® (Martindale Pharmaceuticals Ltd, Romford)	Paracetamol 120mg, promethazine 1.5mg/5ml
	Fennings Children's Cooling Powders® (Anglian Pharma, Hitchin)	Paracetamol 50mg per 200mg dosage
	Panaleve Junior® (Pinewood Healthcare, Dublin)	Paracetamol 120mg/5ml
	Boots Infant Pain Relief® (The Boots Co plc, Nottingham)	Paracetamol 120mg/5ml, ethanol 4.8% v/v
	Placidex Syrup® (E. C. De Witt & Co Ltd, Runcorn)	Paracetamol 120mg/5ml

tively little research has investigated the management of teething, in particular the treatment of teething pain (advice regularly sought by frustrated parents). The current methods of the management of teething are presented in Table 2. Table 3 details the proprietary names and constituents of teething medicaments. Infants with severe systemic upset should be promptly referred to a physician for an accurate diagnosis and appropriate treatment.

Non-pharmacological management

A wide range of teething rings are commercially available for infants to 'gnaw' however, parents should be advised to check the packaging carefully for any potentially harmful substances used in their manufacture. Solid silicone-based teething rings are superior to their liquid filled counterparts, as the potentially irritant contents may leak, if damaged, and furthermore, usually, they cannot be sterilised. Temporary pain relief is provided by the pressure produced by chewing the teething ring, maximal when chilled first.

Teething rings should be attached to the infants clothing, and not tied around the neck, as strangulation could result. Hard, non-sweetened rusks such as Bickiepegs, made from flour and wheatgerm with no sugar or sweetener can also be attached onto the infant's clothing.

Many infants achieve pain relief when chewing breadsticks and oven-hardened bread, whilst other parents recommend frozen breads (for example bagels). A variety of fresh and frozen fruit and vegetables have been used by teething infants, anything from peeled cucumber to frozen bananas!

Although many parents have strong views about providing infants with a pacifier at any time, many teething children are comforted by a pacifier, and will chew the teat to provide temporary pain relief. Several of the methods described above involve the application of pressure to the painful area of mucous membrane, and mild pressure can also be applied with a clean finger (possibly with wet gauze) or a cold spoon. Excessive salivation commonly runs onto the infant's skin, and should be wiped away regularly otherwise, a rash (which may be considered pathognomic of teething) may develop.

Reassurance can often be one of the most effective methods of calming a distressed teething child.

Pharmacological management

Most parents prefer to avoid using pharmacological preparations during teething, however, a wide range of effective topical and systemic preparations are available when local measures fail to provide relief.

Topical agents

This group of medicaments includes local anaesthetics (lignocaine-based preparations) and minor analgesics (choline salicylate based preparations). Parents should be advised to wash their hands thoroughly before applying topical agents directly to the painful area of mucous membrane. Some of their reported relief may be due to the pressure of application.

Lignocaine-based products

Lignocaine hydrochloride is a local anaesthetic that is rapidly absorbed through mucous membrane giving prompt relief from pain, although temporary. Anbesol Teething Gel® (Whitehall laboratories Ltd, Maidenhead), Dentinox Teething Gel® (DDD, Watford), Calgel® (Warner Wellcome, Eastleigh), Rinstead® Teething Gel® (Schering-Plough, Welwyn Garden City) and Woodward's Teething Gel® (LRC, London) are the proprietary over-the-counter (OTC) products available. Although Anbesol® is marketed as a teething gel, it is primarily marketed as an adult remedy (for denture irritation), and the concentration of lignocaine is almost three times that of Dentinox Teething Gel® (see Table 3), even though the instructions for teething babies are similar on both packets.

Dentinox Teething Gel®, Calgel® and Rinstead Teething Gel® are specifically formulated for teething infants, the dosage of lignocaine being reduced in accordance with the much smaller body size of infants. Around 7.5 mm of gel should be placed on a clean finger or cotton bud, and rubbed onto the painful area. Although 20 minutes should elapse between approaches, only six applications should be used each day, in order to prevent systemic toxicity. Woodward's Teething Gel® is available OTC, however it surprisingly consists of some 30% ethanol (alcohols are not recommended for infants, and specifically the application directly to mucous membrane should be avoided).

It should be remembered that products containing lignocaine should be avoided if any sensitivity is suspected.

Choline salicyate-based products

Salicylates are regarded as minor analgesics and are similar to lignocaine hydrochloride in that they penetrate mucous membrane readily and give prompt pain relief. Their main pharmacological advantage over lignocaine-based preparations is that in addition to providing analgesia, they are also anti-inflammatory and antipyretic, thus reducing swelling.

Choline salicylate is a non-irritating compound. Choline Salicylate Dental Gel BP, Bonjela® (Reckitt & Colman Ltd, Kingston upon Hull) and Teejel® (Seton healthcare, Oldham) consist of 8.7% choline salicylate with cetalkonium chloride 0.01%, a quaternary ammonium compound.

The Dental Practitioners' Formulary (2000–2002)[28] [DPF] recommends for children over 4 months old, 0.5 inch (7.5 mm) of gel to be massaged onto the painful area not more often than 3 hourly, with a maximum of six applications daily, however the DPF[28] suggests its benefit in teething may merely be caused by the pressure of application.

Choline salicylate is related to aspirin, each tube containing 870 mg of choline salicylate, equivalent to 600 mg of aspirin, and according to the manufacturer's recommendation of one application every 3 hours, one third of one tube could be utilised in 24 hours, equalling 200 mg of aspirin.

The link between aspirin and Reyes syndrome is not relevant for non-aspirin salicylates.[28] Although the Reyes syndrome problems are specific to the use of aspirin after viral infections, many paediatricians and pharmacists now advocate the avoidance of choline salicylate preparations in teething.[29]

Frequent application of choline salicylate preparations to the oral mucosa may result in a chemical burn.

SYSTEMIC ANALGESICS

A sugar-free paracetamol elixir is the systemic medicament of choice in teething because of its action in reducing pain and pyrexia (where present). Paracetamol is thought to act by inhibiting prostaglandin production. Surprisingly, primary-care prescriptions of non-proprietary paracetamol have to specifically request a sugar-free preparation. Paracetamol elixir is available either on prescription, or in a number of OTC preparations. The DPF[28] recommended paracetamol dosage is:

3–12 months = 60–120 mg

1–5 years = 120–250 mg

(It should be noted, that the BNF[30] recommends the prescription of paracetamol for infants under 3 months of age on a doctor's advice only). These doses are repeated at 4–6 hourly intervals, with a maximum of four doses in 24 hours. A graduated syringe should be used for doses under 5 ml, and a calibrated spoon for doses over 5 ml.

Most OTC preparations contain the same dose of paracetamol (120 mg/5 ml), however Infadrops® (Goldshield Pharmaceuticals Ltd, Croydon) contain 100 mg/1 ml. Medised® (Martindale Pharmaceuticals Ltd, Romford) also contains promethazine (an antihista-

mine), which may make the infant drowsy.

Fennings Children's Cooling Powders® (Anglian Pharma, Hitchin) contain a much lower dosage of paracetamol than would appear from the 200 mg 'dosage', which could be confusing for parents.

Underdoses of paracetamol for teething children are ineffective, whilst overdosing may lead to severe hepatocellular necrosis and renal tubular necrosis (DPF).[28] Certain medical conditions (eg HIV-positive and malnourishment) and enzyme-inducing drugs (eg carbemazepine) mean that infants may develop toxicity at significantly lower plasma paracetamol concentrations and this should be borne in mind when recommending or prescribing paracetamol. Ibuprofen suspension can be given to children over one year, but is not recommended for teething.

'Alternative' holistic medicine

Alternative non-pharmacological holistic therapies (acupressure, aromatherapy, massage and homeopathy) have been suggested as giving relief from the symptoms of teething.

Acupressure requires the parent to apply pressure to certain key skin points, providing immediate, if temporary pain relief. Aromatherapy uses essential oils (for example diluted clove oil, tea tree oil or even olive oil), often with massage to neutralise the inflammatory mediators produced during teething. Alternatively, chamomile oil (recommended for teething) may be placed (out of reach) in an aromatherapy diffuser in the infant's bedroom.

Teething children can be comforted and stimulated by a full body massage, however this is not recommended for young infants.

Homeopathy uses the following three principles. Minute doses of a substance that causes a particular condition in a healthy person are curative in the ill individual. Serial dilution increases the curative power and avoids unwanted side-effects. Homeopathy treats the whole person, not solely the illness and is becoming a more popular method of treating the symptoms of teething.

The active ingredient in Ashton and Parsons Infant Powders® (SSL International PLC, Knutsford) is matricaria tincture (4 mg), a carminative related to chamomile. The main indications of this product are to 'soothe the child, correct the motions, relieve restlessness, fretfulness and similar troubles incidental to the teething period...' all potentially useful benefits during teething, although chamomile and its relations are not reported to have any pain relieving qualities. Teetha® (Nelson Bach USA Ltd, Wilmington, MA, USA) and Boots Homeopathic Teething Granules® (The Boots Co plc, Nottingham) contain 6c potency of Chamomilla, one sachet should be poured into the infant's mouth every 2 hours, up to a maximum of six doses in 24 hours.

Practices that are not recommended

Parents should be advised that a number of outdated practices are potentially harmful. Adding sugar, honey or jam to feeding bottles, or dipping a pacifier in honey or jam has absolutely no pain relieving effect, and is highly cariogenic. Similarly, giving a teething infant a feeding bottle in bed should be discouraged. Parents should also be advised the repeated application of alcohol to the mucous membrane of an infant is ineffective as a topical anaesthetic and due to an infant's small body weight, may lead to hypoglycaemia.

General advice regarding medication

Only sugar-free objects and medication should be prescribed during teething. The potential exists for parents to unwittingly overdose their child when dispensing medicaments, with phrases like '...and one spoonful extra for the cot', and the dangers of paracetamol overdose should never be ignored. Paynter and Alexander (1979)[31] reported the case of an infant overdosed with a salicylate-containing teething gel, where a well-meaning mother had liberally applied the gel onto the gums of her apparently teething child. It transpired that in 48 hours, she had used three complete tubes, some 2,610 mg of choline salicylate!

Teething remedies should be kept well out of reach of all children, as even 'childproof' containers can be opened by small children, and because of added flavourings, children can unwittingly overdose themselves. Medicines, including teething remedies, should never be added to food or feeding bottles, as parents (or carers) cannot accurately control the dosage ingested. In addition, the active ingredient of the medication may adversely interact with foodstuffs and the possibility exists for other children to share potentially harmful medication in this way.

CONCLUSIONS

- The diagnosis of teething, although historically having been applied to almost any condition whatsoever, is now reserved for a specific collection of variable signs and symptoms.
- Severe systemic upsets are unrelated to teething and, if present, the infant should be promptly referred to a physician for an accurate diagnosis and appropriate treatment.
- The currently accepted methods of pain relief for teething infants have progressed considerably since the days of leeching and gum-lancing.
- A number of supportive measures as well as topical and systemic pharmacological preparations, in addition to alternative holistic therapies can be used to relieve the pain of teething.

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