

milky bar kids

...or why milk isn't all it's cracked up to be

Forget the Ford Mondeo, £70 trainers and quilted lavatory paper - human beings are animals. Try as we might to forget it, we are governed by our diet, environment and specific diseases in much the same way as rats or rhinos. So why are we the only mammals to drink milk after weaning - and milk from an entirely different species, at that?

It's a practice that started 6,000 years ago (1), is revered almost as a cross between penicillin and manna from heaven but is it desirable or even morally justified? The more you find out about the white stuff the bigger the question marks that hang over both questions! Can it be right to feed babies - or anyone else for that matter - a product that was designed by nature to turn a tottering little calf into a hulking great beast in a matter of months?

Most of human evolution was fuelled by plant foods, with milk playing the same role as it does in other mammals - produced by mothers for nurturing infants until weaning. The sugar in milk - lactose - is broken down by a special enzyme called lactase, which then gradually disappears after weaning, having done its job. Continuing to drink milk past this point is why so many people are unable to digest lactose, which can remain in the gut and ferment, producing bloating, watery diarrhoea, flatulence and stomach cramps (2).

Those who can cope with cow's milk in the short term face longer-term consequences. It is loaded with saturated fat, cholesterol, animal proteins and sugars, is devoid of fibre, vitamin C and iron and contains only small amounts of vitamins K, E, B1, B2, and B6, magnesium, selenium and zinc. On the plus side, it does contain vitamins A and D, vitamin B12 and calcium but it may also contain salmonella, listeria and E.Coli bacteria, hormones such as oestrogen and antibiotic residues (19,11,12).

Cow's milk infant formulas have been linked to allergies, type I (insulin dependent) diabetes and even cot death. Soya-based infant formulas are an excellent alternative and have been used safely for over 60 years and despite the scare stories, there is no strong evidence of damage to a baby's mental or physical development.

The fact that dairy contains no iron is part of a double-whammy effect. Drinking too much milk excludes other foods which may contain essential iron but dairy can actually inhibit its absorption. Even worse, cow's milk formulas and cow's milk itself can produce an allergic reaction in children which causes hidden intestinal bleeding resulting in iron deficiency anaemia.

As many as one in five under twos are affected (7, 60, 61).

Saturated fat is a killer, whether it comes from meat or dairy, and causes heart disease, diabetes, strokes, cancers, allergies, food poisoning, rheumatoid arthritis, migraines, kidney diseases and osteoporosis - with milk taking particular credit for Crohn's disease, an inflammation of the gastrointestinal tract. The seeds for almost all these diseases are sown in childhood, the age group at which milk is most energetically promoted.

Allergies happen when the immune system reacts to something it sees as an invader and are characterised by asthma, eczema, a constant runny or congested nose, hay-fever and skin rashes. They can also lead to ear infections, colic and maybe even cot death (14, 16, 17,18). Both the British Allergy Foundation and the National Asthma Campaign believe dairy products contribute strongly to asthma (15, 19).

A milk sugar called lactose is one of the causes and affects as many as seven per cent of UK children under one year old, many of whom continue to suffer into adulthood (15). Milk proteins are also

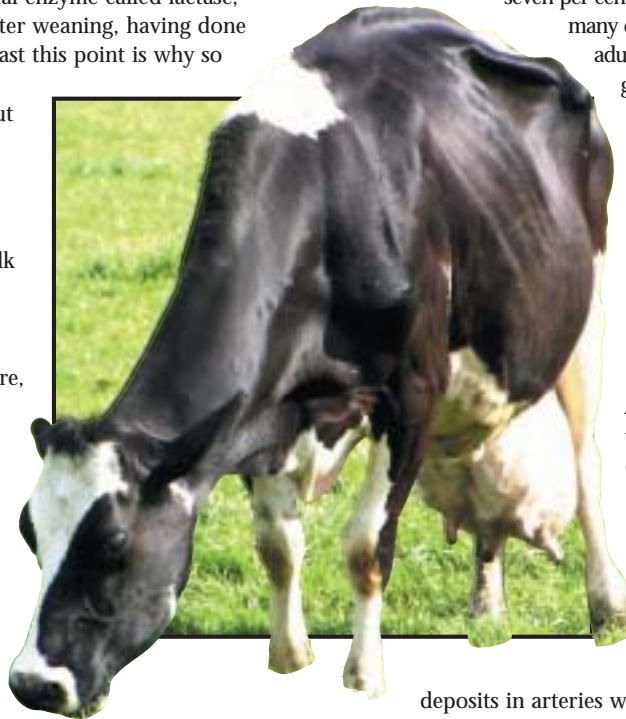
guilty, causing the body to produce excess mucous which can trigger asthmatic attacks and ear infections (20, 21). Vegan diets often produce dramatic improvements in asthmatics and children with ear infections (22, 23). Nursing mothers may unwittingly play a part because of the saturated (animal) fat they eat and pass on to their infants in breast milk (24).

Allergies to dairy protein can also trigger rheumatic inflammation of the joints. Again, vegan diets have been very effective at reducing the frequency and severity of attacks (44, 55, 62).

Saturated fat in dairy plays a big part in heart and blood vessel diseases (25), contributing to fatty deposits in arteries which can cause them to narrow or become blocked, resulting in heart failure.

Drinking skimmed milk doesn't avert the problems as lactose and calcium, especially in non-fat milk, may contribute to hardening of the arteries (26, 27). If you reduce the amount of fat in milk, its protein content increases and milk proteins, particularly casein, have been strongly linked with fatal heart disease (28).

Another killer increasingly being linked to milk is cancer - of the breast, prostate and colon. Saturated fat produces bile acids which raise the risk of colon cancer (30). It also increases oestrogens (female sex hormones), linked to many types of breast cancer (31, 32). Saturated fat also promotes obesity, which



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in turn raises the risk of ovarian cancer (33). Lactose may also be involved by over-stimulating hormone production which spurs the growth of tumours. Another twist comes as lactose breaks down to form galactose, possibly damaging ovaries and boosting cell production, including tumour cells (36, 37, 66).

Cow's milk contains a potent quantity of IGF-1 (insulin-like growth factor) which may cause the body's own production of insulin to shut down (43). It also seems to encourage the growth of breast, colon and prostate cancers (34, 35, 59) and is linked to type I (insulin dependent) diabetes in children, with milk-drinking kids facing a higher risk than vegans. High fat and low fruit and veg consumption are implicated in both type I and type II diabetes - the 'adult onset' diabetes that is increasingly being seen in young teenagers (38, 39, 40, 41, 42).

Crohn's is a painful disease which affects 90,000 people in the UK, a high percentage of which are children. The guilty party is thought to be the MAP bacterium, in cow's milk even after pasteurization. It causes much the same disease in cattle when it's called Johne's disease (45, 46, 47).

Then of course there's food poisoning - widespread and rapidly on the rise, with 95 per cent of cases being caused by meat and dairy (48, 49). It affects five million people annually in the UK, killing more than 300, and is particularly serious for children.

Animal protein, including that in dairy, makes the kidneys work much harder to filter out the indigestible nutrients. The result can be debilitating kidney problems, including nephrotic syndrome affecting 10 per cent of UK children under five. According to the American Dietetic Association: 'A well-planned vegan diet may be useful in the prevention and treatment of renal [kidney] disease' (50).

Milk is important for calcium, we're told. Yes, milk does contain considerable amounts but that's only part of the story. Not all the calcium is absorbed and milk protein can actually result in calcium loss by producing sulphur amino acids, neutralised by leaching calcium from the bones. In later life, this can lead to brittle bones (osteoporosis) and kidney stone formation and regular dairy eaters are significantly more at risk than those who don't eat dairy (51, 52, 53, 54). Looking at calcium intake without considering the losses prevents a very misleading picture.

Believe it or not, fertility can also be compromised by dairy products. The sugar galactose can damage ovaries and

lower fertility rates. Obesity, to which dairy makes a significant contribution, can also affect fertility (36). A vegan diet improves or prevents these conditions (13, 56, 61).

Giving up dairy doesn't mean going without as there's an array of dairy free milks, cheeses, creams, yoghurts and ice-creams which taste delicious and are healthier. They contain no cholesterol and little saturated fat; are high in fibre and often contain disease-busting antioxidant vitamins C, E and beta-carotene. They contain plant proteins rather than animal proteins and minerals such as magnesium and potassium. Phytoestrogens stimulate bone-building cells and although plant foods do contain sufficient natural calcium, some products are fortified with both it and vitamin B12 (57).

So what about the moral question? Cows are highly intelligent creatures who, left to their own devices, nurture and fiercely protect their young. They never get that chance because their calves are taken away at a day or two old - the males mostly to be shot, the females to replenish the dairy herd. A nine months pregnancy reduced to a bullet in the head!

For seven months of their pregnancy, they are also forced to carry the burden of milk production. Hardly surprising, then, that after two or three pregnancies they are exhausted and are slaughtered. Their short lives are physically painful as well as emotionally.

A cow now produces a staggering 7,000 litres of milk yearly - 10 times more than a calf could ever drink. There can be 20 kg of milk in udders which evolved to carry just two kg, putting them under enormous stress. Not surprisingly, most cows will suffer from swollen and infected udders (mastitis) and crippling lameness at some time.

Organic milk is little better as the cows are subjected to similar abuse. The main sales pitch is that organic milk is free from artificial chemicals and fertilizers but in practice, this may not always be the case (6). And all other health issues remain the same sad story.

Cow's milk is a complex foodstuff designed to serve the nutritional needs of baby cows, not humans (3, 4).

A list of references can be obtained from VVF, 8 York Court, Wilder Street, Bristol BS2 8QH. Please send an SAE marked 'VH Dairy References'.

