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A guide to infant formula for parents who are bottle feeding

The health professionals' guide

Parents' Text – Page 2

Introduction

This document is designed to help parents who are not breastfeeding decide which infant formula to use to feed their baby.

There is a separate bottle feeding leaflet by the Department of Health on how to sterilise equipment and make up a feed. If you don't have it, ask your midwife for a copy.

If you are bottle feeding you should be shown how to sterilise equipment and make up feeds as safely as possible. If you haven't been shown – ask. Even if you think you know, check with a midwife or health visitor as some advice may have changed. You should also have had support with feeding technique to ensure that you and your baby have a pleasant feeding experience.

What is infant formula?

Most infant formulas are made from cow's milk which has been processed to make it suitable for babies.

There are several brands of infant formula with different company names. There is no evidence that one company's milk is better for your baby than any other. If you think that one company's milk disagrees with your baby, try another company's milk and speak to your midwife or health visitor.

There are also different types of milk e.g. first milk, second milk, follow–on milk, etc. You need to be very careful about which type of milk you use as this could affect your baby's health. Always read the labels very carefully.

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Introduction

This booklet is designed to provide some background for health professionals who are using the leaflet A Guide to infant formula for parents who are bottle feeding to help parents who are not breastfeeding decide which infant formula to use.

All parents who are not breastfeeding their baby need to know how to make up a feed and how to sterilise equipment. They should be given the Department of Health leaflet called Bottle feeding or country equivalent. They should also be shown how to make up a feed and sterilise equipment, even if they think they already know, as some advice may have changed from the last time they did this (National Institute of Clinical Excellence (NICE) 2008).

What is infant formula?

Most infant formulas are made from cow's milk which has been processed to make it "suitable" for babies. (They may also contain, among other things, soya protein, structured vegetable oils, inositol, antioxidants and fish oils).

The composition of all cow's milk–based and soya infant formulas have to meet The Infant

Formula and Follow–on Formula Regulations (England and Wales) 2007, which enact the European Community Regulations 2006/141/EC. The composition of other enteral and specialist feeds have to meet the Commission Directive (1999/21/EC) on Dietary Foods for Special Medical Purposes.

This means the minimum and maximum permitted levels of named ingredients, and named prohibited ingredients, are now laid down by statute. It was the view of the Scientific Advisory Committee on Nutrition (SACN) in 2007 that, "If an ingredient is unequivocally beneficial as demonstrated by independent review of scientific data, it should be made a required ingredient of infant formula in order to reduce existing risks associated with artificial feeding."

However, considerable variations in composition can (and do) exist within the legally permitted ranges. These variations between the different brands are often used as the 'selling point' in advertisements aimed at both parents and professionals. (See appendix 1 and 2)

There is no evidence that one company's milk is better for a baby than any other, and no need for the parents to stick to one brand. Commercially available formulas differ from each other in processing and in sources and levels of protein, lipids, and micronutrients. These differences may affect tolerance (Lloyd et al 1999).

Thus if parents find that one brand seems to disagree with their baby, they could try switching brands. This has been made easier by the availability of ready–to–feed sachets or cartons, as, with these, parents can experiment without having to buy large quantities.

Notes

A full list of all the infant formulas available in the UK in 2003 can be found at: www.sacn.gov.uk/pdfs/smcn_03_06.pdf

There are several brands of infant formula with different company names. An up–to date list can be found at: www.cwt.org.uk A comparison chart is available from the Royal College of Midwives at: www.rcm.org.uk/college/resources/bookshop/?EntryId10=103099

References

SACN 2007. Subgroup on Maternal and Child Nutrition's (SMCN) response to the Infant Formula and Follow–on Formula Draft Regulations 2007 www.sacn.gov.uk/pdfs/position_statement_2007_09_24.pdf

Lloyd B, et al. 1999. Formula tolerance in post–breastfed and exclusively formula–fed infants. Pediatrics. 1999 Jan; 103(1):E7.

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What types of infant formula are there?

First milks

These milks are often described as for newborns. They are based on the whey of cow's milk and are more easily digested than the other milks. Unless your doctor or health visitor suggests otherwise, this is the best type of infant formula for your baby.

If bottle–feeding, first milk is the only food your baby needs for the first six months. After six months continue to give first milk as you start to introduce solid food. When your baby is one year old, ordinary (full–fat) cow's milk can be given.

Second milks

These are often described as for 'hungrier babies'. There is no evidence that babies settle better or sleep longer if given these milks. They are based on the curd of cow's milk and take your baby longer to digest than first milks. They are not recommended for young babies.

Follow–on milks

Follow–on milks are described as suitable for babies from six months of age. It is not necessary to move your baby on to these milks.

Follow–on milks should never be used for babies under six months old as they are not nutritionally suitable. However, the labels can look very similar to first milks so read them carefully.

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What types of infant formula are there?

In 2003 SACN reported that there was no documented benefit of milk proteins from animals other than cows, or of plant proteins, over cows' milk protein in the manufacture of infant formula. This advice is unchanged.

First milks (Whey dominant milks)

These milks are often described as for newborns. They are based on the whey of cow's milk and the ratio of proteins in the formula approximates to the ratio of whey to casein found in human milk (60:40). These feeds are more easily digested than the casein–dominant formulas, which may have a slight effect on gastric emptying times.

There is no evidence that changing from whey–based first milk to any other type of formula is necessary or beneficial – at any point.

First milk is the only food bottle–fed babies need for the first six months of life. After this, as they

start to be introduced to solid food, they can continue to receive first milk. When the baby is one year old, ordinary (full fat) cow's milk can be substituted for the first milk.

Second milks (Casein dominant milks)

These are also sold as being suitable for use from birth, but they are aimed at parents whose babies are 'hungrier'. Although the proportions of the macronutrients (fat, carbohydrate, protein, etc.) are the same as is found in whey–dominant formula, more of the protein present is in the form of casein (20:80). For this reason they are not recommended for young babies.

The higher casein content causes large, relatively indigestible curds to form in the stomach and is intended to make the baby feel full for longer. However, there is no evidence that babies settle better or sleep longer if given these milks (Taitz 1989, Thorkelsson 1994).

Follow–on milks

Follow–on milks are described as suitable for babies from six months of age. They should never be used for babies under six months, as among other things they contain more iron than young babies need, as well as sucrose, glucose and other non–milk sugars. The permissible concentrations of some minerals are higher than in first milks.

Parents do not need to change from first milk to follow–on milk when their baby reaches six months of age. There is no published evidence that the use of any follow–on formula offers any nutritional or health advantage over the use of whey–based infant formula among infants artificially fed (SACN 2007). For this reason the Department of Health does not include follow–on formula in the Healthy Start Scheme.

However, the labels on packets and tins of follow–on milks look very similar to those on packets and tins of first milks – so parents need to be advised to read labels carefully. (Joint UNICEF/NCT Mori survey 2005)

References

SACN 2003: www.sacn.gov.uk/pdfs/smcn_03_09.pdf

Taitz LS, Scholey E. 1989.Are babies more satisfied by casein based formulas? Arch.Dis.Child. 1989 Apr; 64(4):619–21.

Thorkelsson T, et al. 1994. Similar gastric emptying rates for casein– and whey–predominant formulas in preterm infants. Pediatr Res. 1994 Sep; 36(3):329–33

SACN 2007. Subgroup on Maternal and Child Nutrition's (SMCN) response to the Infant Formula and Follow–on Formula Draft Regulations 2007: www.sacn.gov.uk/pdfs/position_statement_2007_09_24.pdf

Joint UNICEF/NCT Mori survey 2005: www.babyfriendly.org.uk/items/item_detail.asp?item=47

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Goodnight milks (or milks that say they help baby sleep)

Goodnight milks are advertised as suitable for babies from six months to three years of age. They contain follow–on milk and cereal.

These milks should never be given to babies under six months old as they are not nutritionally suitable. They are not necessary for any baby and there is no independent evidence to support the claim that they help babies settle or that they are easy to digest.

Soya formula

Soya formula is made from soya, not cow's milk. Soya formula contains high levels of a chemical called phytoestrogen which may have negative effects on babies and so should only be used in exceptional circumstances and only under the recommendation of a doctor.

Goat's milk–based infant formula

UK regulations have been changed from the 28.2.2104 to allow goats milk proteins to be used for the manufacture of infant formula. Therefore from this date, feeding your baby with goat's milk formula as an alternative to cow's milk formula is acceptable. However, if your baby has an allergy to cows' milk, goats' milk formula is unsuitable because the protein content is very similar.

Ordinary cow's milk

Do not give your baby ordinary cow's milk as a drink until he is one year old, as it is not nutritionally suitable until then.

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Goodnight milks

Goodnight milks, which contain follow–on milk and cereal (rice and buckwheat), are advertised as suitable for babies from six months to three years of age. In November 2008 SACN issued a statement on these products in response to a request from the Department of Health.

The Committee could find no published scientific evidence that the use of Goodnight milks offered any nutritional or health advantage over the use of currently available follow–on formula or infant formula. More specifically the Committee could find no evidence to support the manufacturers' statements that they help babies settle or that they are easy to digest. Nor did it consider that the product was suitable as a meal replacement for young children.

Reference

SACN 2008. Consideration of the place of "good night" milk products in the diet of infants aged six months and above.
www.sacn.gov.uk/pdfs/final_sacn_statement_on_good_night_milks.pdf

Soya formula

Soya formula is made from soya beans not cow's milk. Soya–based infant formulas have a high phytoestrogen content and it has been known for some time that this may pose a long–term reproductive health risk (Committee on Toxicity 2003). The Chief Medical Officer has advised (since 2004) that soya–based infant formulas should not be used as the first choice for the management of infants with proven cow's milk sensitivity, lactose intolerance, galactokinase deficiency and galactosaemia (BNF 2009). As well as the risks to reproductive health, there have also been concerns that exposure to soya proteins can adversely affect babies with hypothyroidism and provoke allergy. (Sampson, 1988; Businco et al, 1992). In addition, up to 60 per cent of infants with cow milk protein–induced enterocolitis will be equally sensitive to soy protein (Eastham, 1989; Burks et al., 1994; Whitington and Gibson, 1997).

Much of this information is reflected in the advice available to the general public on the Food Standards Agency website (www.food.gov.uk/), yet soya–based artificial baby milks are still available in supermarkets and pharmacies and are promoted to health professionals. Parents can feed their babies soya–based artificial milk without ever having consulted a health professional, even though this is recommended in the small print on the tin/packet. The only health advice that is given (on the tin) relates to dental hygiene (as soya–based formula contains more sugars from non–milk sources than cow's milk–based formulas and are considered more cariogenic (likely to cause tooth decay)), so most parents will be unaware of other possible adverse health effects. Parents at particular risk in this category include vegans and those who drink (adult) soya milk and may assume that their baby will also gain health benefits from drinking soya–based artificial baby milk (Martyn 2003).

References

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Goat's milk–based infant formula

The Infant Formula and Follow-on Formula Regulations (2007) have been amended from the 28.02.2014 to allow the use of goats milk proteins in the manufacture of infant formula milks. Details of the legislation can be found at:
http://www.legislation.gov.uk/uksi/2013/3243/regulation/2/made

The EFSA (European Food Standards Agency) has warned that goats' milk formula may not be suitable for infants with an allergy to cows' milk proteins. The proteins in cows' and goats' milk are so similar that a baby allergic to one would almost certainly be allergic to the other. Details of the legislation can be found at:
food.gov.uk: Http://www.food.gov.uk/news-updates/news/2014/6003/goats-milk

Hypoallergenic infant formula

Hypoallergenic infant formulas of various types are available, with or without prescription, and are intended for babies who are at risk from allergies or who have a proven cow's milk protein intolerance. They should only be used under medical or dietetic supervision.

NICE considers that there is insufficient evidence to suggest that infant formulas based on partially or extensively hydrolysed cows' milk protein can help prevent allergies.

NICE 2008. Maternal and Infant Nutrition:
www.nice.org.uk/nicemedia/pdf/PH011quickrefguide.pdf

Products for metabolic diseases

There is a large range of disease–specific infant formulas and amino acid–based supplements available for use in children with metabolic diseases (see under specific metabolic diseases, British National Formulary for Children; Appendix 2 Borderline substances). Some of these formulas are nutritionally incomplete and supplementation with vitamins and other nutrients may be necessary.

Ordinary cow's milk

Infants should not be given ordinary cow's milk as a drink until they are a year old.

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How often should I feed my baby?

You should feed your baby as much as he wants, as often as he asks, provided he is not regurgitating significant amounts. If he is regurgitating significant amounts this may mean that he wants smaller amounts – but more often – than the 'guide' section on the tin or packet suggests.

Newborn babies may take quite small volumes to start with, but by the end of the first week of life most babies will ask for approximately 150–200ml per kg per day – although this will vary from baby to baby – until they are six months old.

Avoid overfeeding. Giving lots of milk in one feed will not necessarily enable your baby to go longer between feeds. It is just as likely to make him be sick, or put on too much weight. Pace the feed in response to his needs and remove the teat at frequent intervals to enable him to have a rest and decide if he wants to stop or take more. Don't try and make him finish the bottle if he doesn't seem to want it and don't use a fast flow teat as babies can find it difficult to control their breathing if they are forced to swallow large volumes of milk.

How do I know if my baby is hungry?

You will soon learn to recognise signs of hunger in your baby. If you can spot these before he is crying for food, he will be easier to feed.

- When he wakes up he will start to move about. This would be a good time to start preparing the feed.
- He will then begin to move his head and mouth around.
- Finally he will find something to suck, usually his fingers. This would be a good time to offer your baby some milk.

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How often should bottle–fed babies feed?

All babies should be fed according to their individual needs regardless of the milk they are receiving. Parents should be re–assured that the 'guide' section on the tin or packet does not have to be followed without question.

Newborn babies may take quite small volumes to start with, but by the end of the first week of life most babies will ask for approximately 150–200ml per kg per day – although this will vary from baby to baby – until they are six months old.

All Parents should have a discussion about responsive bottle feeding to ensure that their baby has as pleasant experience as possible. Holding baby close, inviting him to take the teat by gently rubbing it against his upper lip to encourage him to open his mouth and pacing the feed will help the baby to retain some control. Limiting the number of people involved with feeding will also help the baby feel secure and support a stronger bond between mother and baby. If others are involved with feeding encourage parents to make sure they use the same feeding technique. Parents may need to be advised against overfeeding, particularly against giving lots of milk in one feed in the hope that the baby will go longer between feeds.

The baby is more likely to put on too much weight (or to be sick) if he is given more milk than he wants.

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How do I know if my baby is getting enough milk?

Your baby's weight gain and what is in the nappy will tell you whether he is getting enough to eat.

- Your baby will be producing at least six wet nappies a day after the first day or so. These should be soaked through with clear or pale yellow urine.
- For the first few days after birth your baby will pass dark sticky stools (meconium). After the first week your baby should pass pale yellow or yellowish–brown stools. Bottle– fed babies will need to pass stools at least once a day to feel comfortable.
- Your health visitor will weigh your baby at 8, 12, and 16 weeks and at 1 year and plot on a chart. She will discuss the findings with you.

What if my baby seems constipated?

Often this can be resolved with closer attention to the way in which the feed is made up, or possibly by changing brands. Ask your health visitor for advice.

What about bottles and teats?

Teats can be made from rubber or silicone and vary in shape. There is no evidence that one teat is better than another. It is fine to try different teats and use the one that suits your baby best.

All feeding bottles are made of food–grade plastic. However, some shapes and patterns on bottles can make them difficult to clean. A simple, easy–to–clean bottle is probably best.

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What if my baby seems constipated?

This may be resolved with closer attention to the way in which the feed is made up, since reconstitution errors are not uncommon (Renfrew et al 2003). If this doesn't resolve the problem, the parents could try changing the brand of first milk that they use. Stool hardness is significantly related to the concentration of calcium soaps of unsaturated fatty acids in the stool, which is in turn related to the specific composition of the milk (see introduction (Bongers 2007, Alarcon 2002, Forsyth. 1999, Lloyd 1999)). There is no physiological or research basis for offering extra water to an already well hydrated baby in order to produce softer or more frequent stools (Young 1998).

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What about bottles and teats?

Despite manufacturers' advertising claims, no bottle teat is like a breast. In particular, teats do not lengthen like the human breast/nipple (Nowak et al 1994). The size of the hole in the teat primarily accounts for the observed variability in milk flow (Mathew 1990). As a starting guide, the milk should drip out of the upturned bottle at the rate of one drop per second. If the milk is flowing too fast for the baby, he may drool the milk in order to protect his airway. In this case a teat with a smaller hole would be advisable.

There is some evidence that it is easier for a baby to use a simple soft long teat than industry–labelled orthodontic teats (Kassing 2002), but parents should be encouraged to experiment, and use the type of teat that seems to suit their baby (Scheel et al 2005). Teats should be regularly inspected and replaced as soon as they show signs of wear.

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How do I help my baby to feed from a bottle?

- Always hold your baby close to you and look into his eyes when feeding. This helps your baby feel safe and loved.
- Try to hold your baby fairly upright, with his head supported in a comfortable, neutral position.
- Hold the bottle horizontal to the ground, tilting it just enough to ensure your baby is taking milk, not air, through the teat. Babies feed in bursts of sucking with short pauses to rest. In this position, when your baby pauses for a rest the milk will stop flowing, allowing him to have a short rest before starting to suck again.
- Brush the teat against his lips and when he opens his mouth wide with his tongue down, help him draw the teat in.
- You will see bubbles in the bottle as your baby feeds. If you can't see any bubbles, break the suction between his tongue and the teat from time to time by moving the teat slightly to the side of his mouth. You should then see bubbles rushing back up into the remaining milk.
- Your baby may need short breaks during the feed; he may also need to burp sometimes.
- Interrupting the feed from time to time also gives your baby a chance to register how 'full' he is, and control his intake.

Feeding is a perfect opportunity to help you and baby form a close loving bond. Aim to keep the number of people who feed him as small as possible. If any other close family member gives an occasional feed make sure they use the same technique so that baby does not feel frightened or confused.

Your baby should always be held and never be left unattended while feeding from a bottle.

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Helping the baby to feed from a bottle

The baby should be held fairly upright, with his head supported in a comfortable, neutral position. (Drinking while the head is turned sideways or tilted back makes it more difficult for baby to swallow). He should be held close to the parent's body and should be able to make eye contact. Bottle–feeding, like breastfeeding, should be a social interaction, not just a method of delivering nutrition.

Parents should be warned that leaving a baby unattended while feeding, or feeding a baby who is lying flat, may be dangerous. (He could choke or aspirate the formula into his lungs. Falling asleep with a bottle allows the sugary formula to pool in the mouth, which if in contact with teeth, increases dental caries. When bottle–feeding in the lying–down position, formula may travel from the back of the baby's throat up through the eustachian tube into the middle ear, causing ear infections.)

The reflexes the baby is born with will help him bottle–feed. If the teat is brushed against his lips he will open his mouth wide and dart his tongue down. At that point he should be helped to draw the teat in.

The bottle should be held horizontal to the ground, tilted just enough to ensure the baby is taking milk, not air, through the teat.

Babies feed in bursts of sucking with short pauses to rest. In this position, when the baby pauses for a rest the milk will stop flowing, allowing him to have a short rest before starting to suck again.

The parents should be advised to look for air bubbles coming up into the bottle as the baby feeds.

If no bubbles are visible the baby may have created a vacuum in the teat and no milk will be flowing. Breaking the suction between the baby's tongue and the teat from time to time, by moving the teat slightly to the side of his mouth, should release the vacuum. Bubbles should then be seen rushing back up into the remaining milk.

The baby may need short breaks during the feed; he may also need to burp sometimes.

Interrupting the feed from time to time also gives the baby a chance to register how 'full' he is, and thus control his intake. This will reduce the chances that the baby will overfeed and put on more weight than is appropriate for health.

A baby needs to be able to relate to those caring for him. Advise parents to keep the number of people who feed him as small as possible.

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What about winding?

If your baby shows signs of distress during the feed, encourage him to let go of the teat and sit him up, or put him over your shoulder, and see if he needs to burp. Continue feeding him when he seems more comfortable.

When should I start giving other foods to my baby?

The recommended age for starting to offer your baby other foods is six months. All the nourishment your baby needs for the first six months is provided by first milks.

It is normal for your baby's feeding and sleeping patterns to alter as he grows and develops. This does not mean that you need to change the type of milk or introduce solid food.

Once you start introducing solid food, carry on offering your baby first milk as well as other foods until your baby is a year old. Babies can be encouraged to use cups when they start on solid food at around six months.

Further reading:

Department of Health's Bottle feeding leaflet

First Steps Nutrition has a range of useful guides on formula feeding

Breastfeeding is the healthiest way to feed your baby. If you decide not to breastfeed or to stop breastfeeding, it is possible to restart but it will be difficult. Giving infant formula to a breastfed baby will reduce your breastmilk supply.

You do not need to eat any special foods while breastfeeding, but it is a good idea for you, just like everyone else, to eat a healthy diet. It is recommended that all pregnant and breastfeeding women take a daily supplement of 10 mcg of Vitamin D.

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What about winding?

The belief that babies need burping after feedings, or help "bringing up the wind," originated with the spread of bottle–feeding. The faster flow of milk from bottle nipples forces babies to gulp air in between closely–spaced swallows. Attention to the points on the previous page will reduce this.

However, if the baby shows signs of distress during the feed, parents should be encouraged to help him let go of the teat and sit up. Alternatively he can be put over his parent's shoulder, to see if he needs to burp. The feed can be resumed when he seems more comfortable.

On the other hand, they should be re–assured that if the baby does not burp after being upright for a minute or two after the end of the feed, or if he goes to sleep – he doesn't need to burp!

Changes in feeding and sleeping patterns

It is normal for a baby's feeding and sleeping patterns to alter as he grows and develops. This does not mean that he needs to change milk. Nor does it mean that he needs to start solid food before he is six months old.

Starting solids

All the nourishment a baby needs for the first six months is provided by first milks. Feeding babies solid food before this time could lead to diarrhoea and vomiting upsets which may need hospital treatment. They are also unlikely to be developmentally ready for other foods.

Signs of developmental readiness

- He can co–ordinate his eyes, hand and mouth and look at food, grab it and put it in his mouth all by himself.
- He can swallow food. Babies who are not ready will push their food back out, so they get more round their face than they do in their mouths! (Start4Life DH 2010)
- He can hold his head steady when in a sitting position.

Once solid foods have been introduced, parents can carry on offering the baby first milk as well as other foods until he is a year old. Babies can be encouraged to use (open–top) cups when they start on solid food at around six months.

Appendices

Appendix 1: Substances parents may ask about

Prebiotics and Probiotics

Differences in the type of bacteria present in the gut of a baby will depend to a large extent of whether the baby is breastfed or formula fed. The marked differences in the incidence of infection which exist between breast–fed and formula–fed infants have been thought to be due in part to the type of bacteria, particularly bifidobacteria, in the gut (Parracho 2007). Two approaches have been taken to try to increase the number of "good" bacteria in the gut of a formula–fed infant. One has been to encourage bacterial growth (prebiotics) and the other has been to add the bacteria itself to the formula (probiotics).

Prebiotics

A prebiotic is a non–digestible food ingredient, generally an oligosaccharide, which selectively stimulates the growth or activity of beneficial bacteria already in the large intestine. The most recent Cochrane review of the evidence for prebiotics preventing allergy or food hypersensitivity concluded: "There is insufficient evidence to recommend the addition of prebiotics to infant feeds for prevention of allergic disease or food reactions" (Cochrane 2007). However all standard infant formulas currently contain prebiotics (Westland S & Crawley H (In Press)).

Probiotics

Probiotics are live micro–organisms added to the diet, usually as lactobacilli or bifidobacterium.

There is insufficient evidence to recommend the addition of probiotics to infant feeds for prevention of allergic disease, food hypersensitivity or diarrhoea (Cochrane 2007, CRD 2004).

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Nucleotides

Nucleotides are molecules that, when joined together, make up the structural units of RNA and DNA. In addition, nucleotides play central roles in metabolism. Dietary nucleotides have long been suggested to have beneficial gastrointestinal and immunological effects and have been added to infant formulas for over 30 years. However the evidence to support this is not strong (Yu 1998, Gutiérrez–Castrellón et al 2007). Although nucleotide supplementation may "improve" the composition of the gut bacteria in formula–fed infants, this does not necessarily translate into a reduced incidence of gastrointestinal infections (Singhal et al 2008).

References

YuVY 1998. The role of dietary nucleotides in neonatal and infant nutrition. Singapore Med J. 1998 Apr;39(4):145–50. Review

Singhal A, Macfarlane G,Macfarlane S. et al. 2008. Dietary nucleotides and fecal microbiota in

formula–fed infants: a randomized controlled trial. American Journal of Clinical Nutrition, Vol. 87, No. 6, 1785–1792, June 2008

Long chain polyunsaturated fatty acids

LC–PUFAs or LCPs occur naturally in breastmilk and are thought to play a role in brain development and vision. For some time now most manufacturers have added these to their product in the hope that they will perform the same function when added to formula. The most recent Cochrane review (2008) found that feeding term infants with milk formula enriched with LCPUFA had no proven benefit regarding vision, cognition or physical growth.

Reference

Simmer K, Patole S, Rao SC. Longchain polyunsaturated fatty acid supplementation in infants born at term. Cochrane Database of Systematic Reviews 2008, Issue 1: www.cochrane.org/reviews/en/ab000376.html

What about vegetarians?

Currently none of the whey–based infant formulas are listed as suitable for vegetarians. This will be partly because some manufacturers use fish oil as the source of the LCPs (See above). (Westland S & Crawley H (In press)).

What about vitamins?

Term babies, who are under six months of age and fed only on formula, do not need extra A & D vitamins as these are added to the milk. Babies over six months, who are drinking less than 500ml formula per day, will need a vitamin supplement containing vitamins A & D. When term babies stop drinking infant formula they should be given vitamin ACD drops until two, preferably four, years of age. Children from groups at risk of vitamin D deficiency, such as those from BME backgrounds, should continue to take a vitamin D supplement into childhood and adolescence.

Preterm babies, who are being fed on the special formula for preterm babies, do not need any extra vitamin supplements as they are added into the milk. When preterm babies stop their multivitamin and iron supplement or change their milk drink from the special formula for preterm infants, they should begin a vitamin supplement containing vitamins A & D.

Appendix 2: What claims can infant formula manufacturers make about their products?

Statements such as 'Now even closer to breast milk', 'Closer than ever to breastmilk', 'Prebiotics support natural defences', 'Helps brain and eye development', ‘Omega 3 LCPs for development’ ‘Nucleotides help growth and the immune system’, ‘Beta–carotene helps the immune system’ do not comply with EU legislation on the marketing of infant formula.

In March 2007 new guidance was issued by the Local Authorities Coordinators of Regulatory Services (LACORS) to Trading Standards officers reminding them of this fact. The Advertising Standards Agency has subsequently upheld complaints against Heinz Nurture and Milupa’s (Nutricia) Aptamil, for making health claims in advertisements that the product could not justify. The ASA found that the claims were unsubstantiated and ruled that the ads were unacceptable. (ASA 2009, 2010). It had previously upheld broadly similar complaints against Nutricia’s Cow and Gate (ASA 2006)

ASA 2009.
www.asa.org.uk/Complaints–and–ASA–action/Adjudications/2009/7/Nutricia–Ltd/TF_ADJ_46577.aspx

ASA 2010.
www.asa.org.uk/Complaints–and–ASA–action/Adjudications/2010/1/HJ–Heinz–Company–Ltd/TF_ADJ_47933.aspx

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www.asa.org.uk/Complaints–and–ASA–action/Adjudications/2006/11/Nutricia–Ltd/CS_41915.aspx

Gutiérrez–Castrellón P, Mora–Magaña I, Díaz–García L, et al. 2007. Immune response to nucleotide–supplemented infant formulae: systematic review and meta–analysis. British Journal of Nutrition (2007), 98:S64–S67