Best vitamins for kids' nutrition

TODDLER

ARTICLE

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Another way of fulfilling children's nutritional requirements is by introducing them to a wide variety of foods from each of the food groups to ensure sufficient nutrients for growth and development.

Knowing your child's nutritional needs and requirements helps you keep your child healthy.

The ABCs of Nutrients

Why is protein important?

Dietary protein is important for growing children because it helps the body's cells to grow and survive. A person's body makes many of its own proteins, which do many different things in the body. But no one, especially children, can make all of the proteins needed to be healthy.

How much protein do toddlers need?

Experts recommend that children aged 1 to 3 years consume 19-22 grams of protein per day. Source: Recomended Dietary Allowance - Health Promotion Board

What kinds of protein are best?

The ideal protein contains all essential amino acids – the building blocks that the body uses to make protein – in the right amounts.

Complete proteins contain all of the essential amino acids in the right proportions. Animal foods, such as milk, meat, and fish are complete proteins.

Why is fat important?

Dietary fat provides a concentrated energy source and essential fatty acids that the body cannot make on its own. Essential fatty acids allow the body to absorb certain vitamins and affect other body functions.

What kinds of fats are best?

The healthiest fats are low in saturated fat and cholesterol.

Medical studies have shown a strong connection between saturated fat and high cholesterol levels, which can eventually cause atherosclerosis, or "hardening of the arteries." After age 2 years, experts advise that saturated fat should account for only 10% of daily calories.

Low-saturated fat, low-cholesterol foods include poultry, fish and lean meat (boiled, baked or roasted; not fried), and low-fat diary products. Vegetable oils are preferable to animal oils.

Why are the fatty acids AA and DHA important?

Arachidonic acid (AA) and docosahexaenoic acid (DHA) are 2 important fatty acids that are "building blocks" for the brain and eyes. Evidence is growing that AA and DHA play an important role in the mental and visual development throughout early childhood.

Why are carbohydrates important?

Carbohydrates are an important source of energy for growing, active children.

What kind of carbohydrates are important?

Complex carbohydrates such as pasta, breads, cereals, rice, and vegetables provide energy as well as nutrients. Fiber, the undigestible carbohydrate component of plant foods, is also important because it helps produce softer and more frequent stools.

Simple carbohydrates, such as sugar, honey, and candy, provide only empty calories.

What are the best vitamins for kids?

Children's diets must supply the right amounts of vitamins to help ensure proper growth. Each vitamin plays its own important part in children's development.

Vitamin A

Vitamin A is essential for the functioning of the eye.

B vitamins

The B vitamins – B1 (thiamine), B2 (riboflavin), B6, B12, niacin, folic acid, and pantothenic acid –helps to release energy and necessary for fat, carbohydrate and protein metabolism. Vitamin B6 is important for the production of energy, while vitamin B12 is needed in the formation of red blood cell.

Vitamin C

Children's bodies need vitamin C which enhances absorption of iron from non meat products.

Vitamin D

Vitamin D is crucial for children because the body uses it to help support calcium absorption and improves bone strength

What quantity of vitamins do toddlers need?

Dietary Reference Intakes (DRIs) for vitamins have been developed by US and Canadian scientists for various life stage groups, including children. If vitamins are consumed at the recommended levels, nearly all children should be able to meet their nutritional needs.

Other countries may have their own systems for recommendations.

DRI for Singapore

Age Group	Weight	Protein	Iron	Vit A (retinol) equiv.	Vit D	Thiamin	Riboflavin	Niacin Equiv
	(a)	(a),(b)	(d),(e)	(f),(g)	(d),(h)	(g)	(f)	(f),(i)
Units	kg	g	mg	mcg	mcg	mg	mg	mg
3- < 6 mths	7	16	7	300	10	0.28	0.42	4.6
6- < 9 mths	8.5	17	7	300	10	0.32	0.49	5.3
9- < 12 mths	9.5	18	7	300	10	0.38	0.57	6.3
1- < 2 yrs	11	19	7	250	10	0.46	0.69	7.6
2- < 3 yrs	13.5	22	7	250	10	0.54	0.81	8.9
3- < 5 yrs	20.5	25	7	300	10	0.62	0.93	10.2
Boys								
5- < 7 yrs	20.5	30	7	300	10	0.74	1.11	12.2
7- < 10 yrs	27	39	7	400	2.5	0.84	1.26	13.9

	Age Group	Weight	Protein	Iron	Vit A (retinol) equiv.	Vit D	Thiamin	Riboflavin	Niacin Equiv
G	irls								
5-	< 7 yrs	20.5	30	7	300	10.5	0.7	1.05	11.6
7- yr	< 10 s	27	39	7	400	2.5	0.72	1.08	11.9

Source: www.hpb.gov.sg accessed on 5th Nov 2012

Potential source of minerals for toddlers

Iron-rich foods include lean red meats, turkey, eggs, lamb, and fish and seafood. Iron is also found in beans, broccoli, spinach, and dried fruit.

Zinc is found in meat, fish, poultry, and dairy products, as well as whole grains, dried beans, and nuts.

Calcium is found in milk and dairy foods, broccoli, and tofu (bean curd).

Phosphorus is found in dairy products, egg yolks, meat, poultry, fish, and legumes.

Fortified growing-up milks, can help meet the required mineral needs during early childhood. Ideal to use as complement solid foods.

Toddler Nutrition

Information about the nutritional needs of toddlers (aged 1-3) and young children (aged 3-5)

Growing children need lots of energy (as calories) as well as other nutrients to ensure they grow and develop normally

- There is evidence that the diets of children under 5 are not always optimal and are:
 - Too high in the type of sugar that damages teeth
 - Too low in certain vitamins and minerals, such as vitamins A and D, as well as iron and zinc
- Giving a child a healthy balanced diet from all the food groups can help to ensure they have the right amounts of all the nutrients they need

What a toddler's diet should be made up of?

- As your child becomes a toddler, they should become fully integrated into family meals, though they may still need a hand cutting things up for a while
- It's really important to make sure family meals are suitable for your child, so use as little sugar, salt and strong spices in your recipes as you can get away with
- Milk still plays an important role in your toddler's diet, though they need slightly less now, about 350 ml of milk or 2-3 servings of dairy foods per day
- Providing your toddler is eating a good, varied and balanced range of foods, you
 could consider using full fat cows' milk as the main drink after 12 months of
 age.
- Your toddler should be eating a wide variety of foods from each of the food groups and you should be aiming for:

Food Groups	Recommended number of servings per day					
	6 months (181 days) - 12 months	1-2 years	3-6 years	7-12 years		
Rice and Alternatives (Do include the recommended wholegrain serving as part of the Rice and	1 - 2	2 - 3	3 - 4	5 - 6		
Alternatives serving needs.) Whole grains		1	1 - 2	2 -3		
Fruit		1	1	2		
Vegetables			1	2		
Meat and Alternatives			1	2		
Milk (Do include the recommended milk serving in addition to the Meat and Alternatives serving needs.)	750 ml	750 ml	500 ml	200 - 500 ml		

Source: www.hpb.gov.sg accessed on 5th Nov 2012

What are the nutritional needs of toddlers and young children?

Energy

- Toddlers and young children need energy (as calories) to enable them to function and be active as well as for growth and development
- The body gets energy from fat and carbohydrates mainly but also some from protein

Protein

 Protein is needed for growth and the maintenance and repair of body tissues, as well as to make enzymes that control many body functions

Fat

- Some fat in the diet is essential and provides essential fatty acids
- Fat in foods also provides some of the fat soluble vitamins; vitamins A, D and E
- Children need more fat than adults because their bodies use proportionally more energy as they grow and develop.
- Omega-3 fats are found in oily fish, which should be given 1-2 times per week

Carbohydrates

- Carbohydrates are starch and sugars in foods
- Starch is the major component of cereals, pulses, grains and root vegetables
- Young children do not need 'sugars' for energy and foods containing added sugar and honey should be limited

Fibre

- Fibre is the part of cereals and vegetable foods which are not broken down in the small intestine and which are important to prevent constipation and other bowel disorders
- Fibre can be bulky and fill children's tummies up quickly, leaving little room for other important foods, so should not be given in excess

Vitamins and minerals

- Vitamins are complex organic substances that are needed in very small amounts for many of the essential processes carried out in the body
- Minerals are inorganic substances required by the body for a variety of functions
- Different foods provide different vitamins and minerals and having a varied and balanced diet is essential for providing adequate amounts of all of these nutrients
- There are some specific nutritional considerations to bear in mind, such as the importance of iron and giving vitamin supplements. Click here to go to the 'Nutrition Matters' section of our website for more information

Meeting the nutritional needs of young children

- Young children should be eating a wide variety of foods from each of the food groups to meet their nutritional requirements
- Detailed information on eating a healthy balanced diet from the different food groups can be found by clicking here which will take you to the 'Eating from the 5 food groups' section of our website
- Toddler milks are specially formulated with the best vitamins for kids, such as iron as well as other key vitamins and minerals and can be a useful addition to a young child's diet











