NUTRITION

1. processing of food: the process of absorbing nutrients from food and processing them in the body in order to keep healthy or to grow

2. science of food: the science that deals with foods and their effects on health

3. FOOD foods: foods, or the minerals, vitamins, and other nourishing substances that they contain

Nutrition is a basic human need. It is of utmost important for life, growth and development, the maintenance of health and continued survival of man. Nutrition is eating habits. Good nutrition (eating the right food in the right quantities) is very important for a child’s physical health and strength, as well as their ability to pay attention and learn.

Adults need to provide the correct kinds of food for children. A child’s diet may be influenced by their culture or be allergies they may have to eat certain kinds of food.

As an ECD practitioner, you need to understand what a healthy diet entails, and you need to be aware of what children may or may not eat.

In other words, NUTRITION is the total of all the processes whereby the living organism ingests substances which are necessary for survival and growth.

- The intake of nutrients (water, proteins, carbohydrates, mineral salts, fats and vitamins)
- The digestion (breaking down of food by enzymes in the stomach and small intestines)
- Absorption (digested food from the small intestine into the blood stream)
- Transportation of nutrients (to all the cells of the body)
- The utilization of substances by the cells
Daily Sample menu for 2 to 6 year olds
Children between the age of 2 through six year olds need 1,000 to 1,400 calories per day with a balanced diet.
The calories depends on the activity level.

Offer same varieties but smaller portions to 2 to 3 year olds. We have tried to exemplify here how the variety from each food group should be included as a daily food intake for children.

Grains: 5 ounce, Vegetables: 1½ Cup, Fruits: 1½ Cup, Milk : 2 Cups, Meat/Beans: 4 Ounce
Breakfast
100% fruit juice: 1 cup
Dalia or Oats: ½ cup
Milk: ½ cup

Mid Morning Snack
Graham Crackers 2 Squares
Milk: ½ cup

Lunch
#1 Meat (Skinless chicken or Fish): 1 ½ oz OR For Vegetarians: 1/3rd Cup Whole Moong Dal
#2 Cooked Brown Rice: ½ cup
#3 Vegetable: ¼ cup
#4 Fruit: ¼ cup
#5 Milk or Yogurt: ½ cup

Menu Notes
For Vegetarians, items #1 and #2 could be replaced with Khichri
Items #4 and #5 could be yogurt banana smoothie

Mid-Afternoon
Whole grain crackers: 5
Almond Butter or Peanut butter: 1 TBL
Cold water: ½ Cup

Dinner
Meat: 2 oz OR For Vegetarians: ½ Cup Cholay
Small Potato: 1
Broccoli: ¾ cup
Whole wheat Phulka: 1
Milk: ½ cup

Daily Sample Menus | 4+ | Children | Cholesterol | Constipation | Diabetes | Heartburn | Hypertension | Obesity | FAQ
Google Group | Disclaimer | What do you think!
## CYCLE MENU FOR 4-6 YEARS

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BREAKFAST</strong></td>
<td><strong>BREAKFAST</strong></td>
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<tr>
<td>Apricot juice - 60 ml</td>
<td>Orange juice - 60 ml</td>
<td>Banana - 1/2 mashed</td>
<td>Apple - 1/2 grated</td>
<td>Fruit juice - 60 ml</td>
</tr>
<tr>
<td>Oats porridge - 1/2 cup, honey 1 teaspoon, milk - 1/2 cup</td>
<td>Cornflakes - 1 cup, Brown sugar - 1 teaspoon, Milk - 1/2 cup</td>
<td>Creamy meal - 1/2 cup, honey - 1 teaspoon</td>
<td>Creamy meal - 1/2 cup, honey - 1 teaspoon</td>
<td>Fruit juice - 60 ml</td>
</tr>
<tr>
<td><strong>MID MORNING SNACK</strong></td>
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<tr>
<td>Yoghurt - 1/4 cup</td>
<td>Yoghurt - 1/2 cup, Oats cookies - 2 Peach - 1</td>
<td>Cheese - 15 g, Apple juice - 60 ml</td>
<td>Milk - 1/2 cup</td>
<td>Graham cracker 2 squares</td>
</tr>
<tr>
<td>Banana - 1 Mashed, ripe</td>
<td>Peanut butter - 2 teaspoons, Bread - 1 slice, Margarine - 1 teaspoon</td>
<td>Baked beans - 60 - 75 g, bread - 1 slice, Margarine - 1 teaspoon, Sweetcorn - 3 tablespoons</td>
<td>Dried fruit - 2 tablespoons</td>
<td>Milk 1/2 cup</td>
</tr>
<tr>
<td><strong>LUNCH</strong></td>
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</tr>
<tr>
<td>Egg - 1 boiled, Bread - 1 slice, Margarine - 1 teaspoon, Apple - 1/2 grated, Milk - 1/2 cup</td>
<td>Peanut butter - 2 teaspoons, Bread - 1 slice, Margarine - 1 teaspoon, Canned peach - 1, milk - 1/2 cup</td>
<td>Baked beans - 60 - 75 g, bread - 1 slice, Margarine - 1 teaspoon, Sweetcorn - 3 tablespoons, Canned pear - 1, custard - 1/4 cup</td>
<td>Fish finger - 1.2, mashed, potato - 3.4 tablespoons</td>
<td>Meat (skinless chicken / fish), Cooked brown rice cup, vegetable 1 cup, fruit - 1 cup, milk / yoghur</td>
</tr>
<tr>
<td><strong>MID AFTERNOON SNACK</strong></td>
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<td><strong>MID AFTERNOON SNACK</strong></td>
</tr>
<tr>
<td>Bread - 1 slice, Margarine - 1 teaspoon, Marmite - 1 teaspoon, Pear juice - 60 ml</td>
<td>Provit - 1.2, Margarine - 1 teaspoon, Honey - 1 teaspoon, Canned apricot 60 g</td>
<td>Bread - 1 slice, Margarine - 1 teaspoon, Jam - 1 tablespoon, Mixed juice - 60 ml</td>
<td>Peanut butter - 2 teaspoons, Crackers - 2, 3, Cranberry juice - 60 ml</td>
<td>Whole grain crackers - 2, 3, Peanut butter - 1 tablespoon, Cold water - 1/2 cup</td>
</tr>
</tbody>
</table>
DIABETIC

Rice milk and Soy milk and tolu are excellent substitutes. Avoid any dairy products such as butter, cheese, some margarines, cream and milk powders.

Diabetics
There are several types of diabetes. The most common are type 1 and type 2. In type 1, the pancreas makes little or no insulin. Individuals with type 1 need insulin shots in order to stay alive. Type 1 can occur at any age but is usually seen in children and young adults.

With type 2 diabetes, the pancreas produces some insulin. Type 2 diabetics need insulin to regulate their blood glucose, while others respond well to diet therapy and exercise alone or a combination of diet, exercise and oral medication.

Starches (pastas, rice, bread, cake, potatoes, corn, etc.) fruit and milk are high in carbohydrates. Once in your body, they break down into your cells preferred form of energy, glucose. Insulin is needed to help your cells take in the glucose. With diabetes, your insulin cannot do this task properly. A diabetic diet helps you schedule your carbohydrate intake so that your cells can get the glucose that they need.

Consuming too many carbohydrate-containing foods can raise your blood glucose way above normal, eating too few, can hurt your body by denying it the high quality energy that it needs. The timing of your meals is also important. The more that you eat at one meal, the more insulin you will need to utilize the energy from the breakdown of those foods. If you eat smaller portions throughout your day, you will not need as much insulin to bring down your blood sugar.

There are many types of diabetic diets. Some require a lot of measuring, some don't require any measuring at all. All are planned to provide you with the proper balance of carbohydrates, protein and fat, along with vitamins, minerals, fibre and other nutrients needed to keep you healthy. It would pay to have the guest give you some guide lines to what would be a suitable meal.

Gluten free (Celiacs)
Gluten is a protein found in all forms of wheat including durum, semolina, and spelt, rye, oats, barley. When people with celiac disease consume gluten, the absorptive villi in the small intestine are damaged, preventing the absorption of many important nutrients. The long-term effect of untreated celiac disease can be life threatening. However, with a completely gluten-free diet, the intestinal lining will heal completely allowing most patients to live a normal, healthy life as long as they remain free of gluten in their diet. Even a small amount of gluten can cause symptoms to reoccur.

Gluten is hidden in many unsuspecting foods such as broccoli, soy sauce, vinegar, some flavorings, most processed foods, self-basting turkeys, some cold cuts, and many prepared stocks and soups. It's also used as a binder in some pharmaceutical products and can be the starch in unidentified food starch, modified food starch, caramel coloring, and vegetable protein. Avoid products where the ingredients are of questionable origin or are listed as simply “natural flavorings, flavor extracts, or spice extracts.”

Products to be avoided in any form are:
- Wheat
- Barley
- Rye
- Oats
- Spelt, semolina, millet, buckwheat
- Couscous, kasha
- Commercial salad dressing
amino acid imbalance, Splenda is created by using chlorine to change the sugar molecules and Saccharin has a link to cancer. There is no doubt that these substitutes are not healthful. Luckily, G-d gave us a wonderful alternative called fruit. Fruit is sweet and when used in cooking and baking satisfies that sweet tooth and helps keep our bodies healthy and strong.

Finally, we touch on the issue of whole grains. Again, the health professionals urge us to increase our fiber intake. One easy way to get more fiber is by eating whole grains. Whole wheat bread, whole wheat pasta, oats, barley and brown rice are some common ways to increase fiber intake. Of course, there are some more "exotic" grains such as millet and farro that your family can try. Additionally, whole grains are digested and processed in the body much more slowly than refined grains – which tend to quickly raise the blood sugar. Another issue is that many people who have allergies to wheat and need substitutions. One easy substitution is substituting 2/3 cup of oat flour and 1/3 cup of brown rice flour for 1 cup of whole wheat flour. There is also brown rice pasta that tastes and looks like regular white pasta. If you wish to make these changes for your family, explain to your older children why you are switching to whole grains and they will be more likely to go along with your plans. The younger children are more adaptable and will be quite willing to go along with any changes you make. No matter what, go slowly to make these changes and your family will get accustomed to it them and will really enjoy these nutritious and delicious meals.

Upcoming Part II: Cream of Asparagus Soup, Onion Bread and Stuffed Baby Squash...

Naomi Muller has been cooking for 36 years (and she is only 42 years old) and has endured many requests to go into catering. Instead
products such as cheeses and yogurts.

**Fat.** Butter, margarine, lard and oils add fat to food. Fat is also in many dairy and meat products. Try to avoid fried foods, mayonnaise-based dishes (unless they are made with fat-free mayo), egg yolks, bacon and high-fat dairy products. Your doctor or dietitian will tell you how many grams of fat you may eat each day. When eating fat-free versions of foods (like mayonnaise and butter), check the label to see how many grams of carbohydrates they contain. Keep in mind that these products often have added sugar.

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**What is the exchange list?**

The exchange list (see the sample below) is a tool to help you plan healthy meals and snacks. To add variety to your diet, you can substitute certain foods for other foods in the same group. Some examples are listed at the right.

### Sample Exchange List

<table>
<thead>
<tr>
<th>Food group</th>
<th>You can have.....</th>
<th>Or exchange it for...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit (each serving contains about 15 grams carbohydrates)</td>
<td>1 small or medium piece of fresh fruit</td>
<td>1/2 cup fruit juice, or canned or chopped fruit</td>
</tr>
<tr>
<td>Vegetable (each serving contains about 5 grams carbohydrates)</td>
<td>1 cup raw vegetables</td>
<td>1/2 cup cooked vegetables or vegetable juice</td>
</tr>
<tr>
<td>Starch (each serving contains about 15 grams carbohydrates)</td>
<td>1 slice or ounce bread</td>
<td>1/2 cup pasta, cereal, starchy vegetable</td>
</tr>
<tr>
<td>Sugar, honey, molasses</td>
<td>1 teaspoon</td>
<td>4 grams carbohydrates</td>
</tr>
<tr>
<td>Milk (does not include cream, yogurt or cheese)</td>
<td>1 cup milk</td>
<td>12 grams carbohydrates and 8 grams protein</td>
</tr>
<tr>
<td>Meat</td>
<td>1 ounce meat, fish, poultry, cheese or yogurt</td>
<td>1/2 cup dried beans</td>
</tr>
<tr>
<td>Fat (includes nuts, seeds and small amounts of bacon &amp; peanut butter)</td>
<td>1 teaspoon oil, butter</td>
<td>5 grams fat or margarine</td>
</tr>
</tbody>
</table>
Diabetes and Nutrition

Why does it matter what I eat?

What you eat is closely connected to the amount of sugar in your blood. The right food choices will help you control your blood sugar level.

Do I have to follow a special diet?

There isn't one "diabetes diet." Your doctor will probably suggest that you work with a registered dietitian to design a meal plan. A meal plan is a guide that tells you what kinds of food you can choose at meals and snack time and how much to have. For most people with diabetes (and those without, too), a healthy diet consists of 40% to 60% of calories from carbohydrates, 20% from protein and 30% or less from fat.

Can I eat any sugar?

Yes. In recent years, doctors have learned that eating some sugar doesn't usually cause problems for most people with diabetes—as long as it is part of a balanced diet. Just be careful about how much sugar you eat and try not to add sugar to foods.

What kinds of foods can I eat?

In general, at each meal you may have 2 to 5 choices (or up to 60 grams) of carbohydrates, 1 choice of protein and a certain amount of fat. Talk to your doctor or dietitian for specific advice.

Carbohydrates. Carbohydrates are found in fruits, vegetables, beans, dairy foods and starchy foods such as breads. Try to have fresh fruits rather than canned fruits (unless they are packed in water or their own juice), fruit juices or dried fruit. You may eat fresh vegetables and frozen or canned vegetables. Condiments such as nonfat mayonnaise, ketchup and mustard are also carbohydrates.

Protein. Protein is found in meat, poultry, fish, dairy products, beans and some vegetables. Try to eat poultry and fish more often than red meat. Don't eat poultry skin, and trim extra fat from all meat. Choose nonfat or reduced-fat dairy
ALLERGIES

Suffered by children and adults alike, wheat allergy appears to be particularly associated with exercise-induced anaphylaxis.

The more of a cereal (wheat, rye, barley, oats, maize or rice) we eat the more likely we are to suffer an allergy. Thus rice allergy is found more frequently in populations eating ethnic diets.

Seed storage proteins (such as wheat gluten) and other proteins present in grain to protect it from attack by moulds and bacteria, have been found to be major allergens.
Allergies to shellfish are unusual in children, mostly being experienced by adults. Reactions to fish are found in children and adults. The incidence of seafood allergy is a high consumption of fish and shellfish.

Severe reactions are more frequently found with these foods, including anaphylaxis.

Cooking does not destroy the allergens in fish and shellfish, and some individuals maybe allergic to the cooked, but not raw, fish.

The major allergens in fish are flesh proteins called parvalbumins which are very similar in all kinds of fish. This is why people allergic to cod tend to be allergic to fish such as hake, carp, pike, and whiting as well.

Shellfish allergens are usually found in the flesh and are part of the muscle protein system, whilst in foods such as shrimps, allergens have also been found in the shells.

Fruits:

In general allergic reactions to fruits and vegetables are mild and are often limited to the mouth. This is called the oral-allergy syndrome (OAS) and is different from the mild initial oral symptoms of more serious food allergies.

The allergens in fruits and vegetables are often very like the allergens in pollens, which is why around four out of ten people allergic to tree and weed pollens are also allergic to certain fruits. Thus people who are allergic to birch pollen are much more likely to be allergic to apples.

The allergens in fruits and vegetables are not as complicated as other foods. Many of them are very like the allergens in pollens, which is why people with pollen allergies are also allergic to certain fruits.

Many fruit allergens are destroyed by cooking, and thus cooked fruits are often safe for fruit allergic people to eat.

Allergies to latex gloves, especially amongst health professionals, are increasing. As many of the latex allergens are like those found in certain tropical fruits, such as bananas, these people can get an allergic reaction to handling or eating these foods.
ALLERGIES

Legumes:
This group of foods includes soya beans and peanuts. Peanuts are one of most allergenic foods and frequently cause very severe reactions, including anaphylaxis.

Allergy to peanuts is established in childhood and usually maintained throughout life.

Both these foods have multiple allergens which are present in the raw and cooked foods.

Peanut allergy can be so severe that only very tiny amounts of peanut can cause a reaction. Thus the traces of nuts found in processed oils, or the carry over of materials on utensils used for serving foods, can be enough in some individuals, to cause a reaction.

The main allergens in peanuts and soya are the proteins used by the seed as a food store for it to grow into a seedling. One of the allergens in soya bean is very similar to a major allergen from dust mites, a common environmental allergen. We aren’t sure yet whether this means there is a link between dust allergy and soya allergy.

Tree nuts:
This group includes true tree nuts, such as Brazil nuts, hazelnuts, walnut and pecan.

Whilst not as intensively studied as peanuts, indications are that tree nuts can cause symptoms as severe which can occasionally be fatal.

Children who become sensitised to tree nuts tend to remain allergic throughout life.

Hazelnut and almond allergies are more like those people get to fruit, and are linked to pollen allergies.

Nut allergens can be both destroyed by, or resistant, to cooking and we think that roasting may actually create new allergens.

The allergens can be the seed storage proteins, or other molecules which are also found in pollen.

Cereals: