

INFANT NUTRITION

Bill and **Anna's baby** is due. The whole family is ready. They have been waiting for the new **baby**. **Anna** has been taking good care of the **baby** even before it is born. **Bill, Kay,** and **Tim** want to help care for the **baby** after it is born. They are learning about **infant** care and **nutrition**. The whole family wants the **baby** to be **healthy**.

PRENATAL NUTRITION AND CARE

When **Anna** knew she was pregnant, she saw a doctor. The doctor helped her plan for a **healthy** pregnancy. This planning gives the **baby** a good start in life. **Anna** has eaten **nutritious foods**. She used **MyPyramid** to know what and how much to eat. Her doctor helped her keep her **weight** on track. She has slowly and steadily gained **weight**. She does not smoke. She does not drink **alcohol**. She doesn't take any prescription or over-the-counter drugs without her doctor's approval. Her **baby's health** depends on what **Anna** does.

NEWBORN NUTRITION AND CARE

When the **baby** is born, it only will be able to suck and swallow. **Anna** knows that **breast milk** or **formula** is all her **baby** will need for the first few months. She cannot use **cow's milk**. She can **breastfeed** the **baby** or **bottle feed** it **formula**. She is trying to decide which to use. **Anna** learned that she can call the Nutritionist at the local Office of Public Health for more information.

Breastfeeding is cheaper than **bottle feeding**. It's also easier. **Anna** won't have to prepare or store **bottles**. **Breast milk** will naturally protect the **baby** from some illnesses. If **Anna** chooses to **breastfeed**, she will keep eating the kind of

nutritious foods that she is eating while she is pregnant. She still will be providing for the **baby's health**.

Bottle feeding is also OK for **infants**. **Infants** who are **bottle fed** grow normally. But, **bottle feeding** costs more. **Anna** will need **bottles** and other equipment. She will also have to buy **formula**. **Bottle feeding** is more trouble. **Anna** will have to **sterilize** everything in order to kill **germs** that could make the **baby** sick. Then, she will have to make the **formula** and fill the **bottles**. She will need to store the **bottles** safely until the **baby** is ready to eat.

INTRODUCING SOLID FOODS

Until the **baby** is ready for **solid foods**, **Anna** will only give the **baby breast milk** or **formula**. Even after the **baby** begins eating **solid foods**, it will need **breast milk** or **formula** until it is at least a year old. **Anna** will start introducing **solid foods** when the **baby** is between four and six months old. By then, the **baby** will **weigh** about twice as much as when it was born. **Anna** learned that several cues mean that the **baby** is ready for **solid foods**. The **baby** will stop pushing things out of its mouth with its tongue. The **baby** will be able to keep its head up. The **baby** will be able to sit when supported. The **baby** will look like it is chewing. The **baby** will seem curious about what the family eats. **Anna** will check with her doctor to be sure her **baby** is ready.

Anna learned that she must introduce **solid foods** slowly. She will try one **food** for several days before starting another **food**. This gives the **baby** time to adjust to the new **food's taste** and **texture**. It also lets **Anna** see if the **baby** has an

allergic reaction to the **food**. **Anna** will watch for diarrhea, tummy aches, rashes, breathing problems, ear infections, or vomiting. **Anna** learned that when **baby** starts eating **solid foods**, the stools will change color and odor. That is OK. But, if the stools are so firm that they seem to cause pain, **Anna** should switch to other **foods**. **Anna** will be patient. If the **baby** doesn't like a **food**, she will try again later. She will follow the **baby's** lead on when to feed, what to feed, and how much to feed.

Cereals

Anna found out that **infant cereals** should be the first **solid food** given to the **baby**. These are special **cereals** made from only one **grain**. They are **fortified** with **iron**. **Rice cereal** will be the first **cereal** to try. It is easiest to digest. It is least likely to cause an **allergic reaction**. **Wheat cereal** will be the last **cereal** to try. It is most likely to cause an **allergic reaction**. **Anna** will serve **mixed-grain cereals** only after the **baby** has been introduced to each **grain** separately and successfully.

To introduce a **cereal**, **Anna** will first **breast feed** or **bottle feed** the **baby** as usual. Next, she will mix a **teaspoon** of **cereal** with 4-5 **teaspoons** of **breast milk** or **formula**. The **mixture** will be very thin. It will be more of a liquid than a **solid**. **Anna** will offer the **baby** the **mixture** on a rubber-tipped spoon. She will start giving **cereal** once each day. She will know the **baby** is full if it turns away or refuses to open its mouth. Once the **baby** eats 2-3 **tablespoons** at a time, **Anna** can add a second **cereal feeding** each day. Then she can add less liquid. This will make the **mixture** thicker. It will help the **baby** learn to chew and

swallow. Once the **baby** is eating about **one-half cup** of **food** per day, **Anna** can add other **solid foods**. This might take a month or longer.

Vegetables and Fruits

Anna learned that she should introduce **vegetables** and **fruits** next. She should offer a few **tablespoons** of it in the same **meal** as a **cereal feeding**. She should start with yellow **fruits** and **vegetables**. They are easiest to digest. She can also introduce some green **vegetables**. She can try **sweet potatoes, squash, applesauce, bananas, carrots, peaches, pears, green beans, and peas**. She should introduce **vegetables** before **fruits** so that the **baby** doesn't refuse **vegetables** in favor of **fruits** that **taste sweet**. The **baby** can start drinking **unsweetened apple juice**. By the time the **baby** is 8 months old, **Anna** can also give the **baby** **cooked dry beans** and **peas**.

Anna can buy **baby food** at the **supermarket**. She can also make her own if she **soft-cooks** it and changes the **texture**. **Anna** should start with **strained** or **pureed cooked vegetables** and soft **fruits**. These will have a smooth, thick liquid **texture**. As the **baby's** mouth muscles develop, table **foods** can be fork mashed to a lumpy **texture**. As the **baby** continues to develop, table foods can be **diced** into small pieces. Whatever she chooses, **Anna** will avoid **canned** or **frozen fruits** and **vegetables** that are high in added **sugar** or **salt**.

Finger Foods

Once the **baby** eats **diced fruits** and **vegetables**, **Anna** can start giving the **baby** some **finger foods**. **Finger foods** are those **foods** the **baby** can feed itself using the fingers. The **baby** may only have a couple of teeth by this time. The **finger foods** **Anna** chooses should be soft enough to gum. They should also be easy to grasp. These include **foods** such as regular **dry cereals** like Cheerios, very small (pea-sized) pieces of **cooked vegetables** or soft **fruits**, or small bits of lightly **toasted whole-grain breads**. To serve **finger foods**, **Anna** should scatter four or five pieces of them on the **baby's** feeding tray or on an unbreakable plate. **Anna** will give the **baby** more after these pieces are eaten.

Meat, Eggs, and Cheese

By the time the **baby** is 8 to 10 months old, the **baby** will probably be eating a variety of **cereals**, **vegetables**, and **fruits**. Now **Anna** can introduce **meats**. **Lean meats** are best. Examples include **strained** or **pureed well-done lean beef**, **pork**, **lamb**, **chicken**, **turkey**, and **boneless fish**. As the **baby's** feeding skills improve, **meats** can be served **ground** or finely **chopped**.

When the **baby** is about 12 months old, **eggs** can be added to the **baby's** **meals**. **Egg yolks** can be added first. **Anna** was surprised to learn that **egg whites** or whole **eggs** should not be given to the **baby** until the end of the first year. This is because **egg whites** often cause **allergic reactions** if introduced too soon. **Anna** can also add small amounts of **cheese** and **yogurt** to the **baby's** **meals**.

FOOD SAFETY FOR INFANTS

Anna learned that creating the right atmosphere for eating contributes to safety. **Anna** will keep mealtimes calm. She will feed the **baby** in a quiet place. **Anna** will make sure that she, **Bill**, **Tim** or **Kay** stays with the **baby** to supervise **meals** and **snacks**. She will place the **baby** in an upright position. She will use a small spoon for **feeding**. She will place **food** on the tip of the spoon. She will put **food** on the middle of the **baby's** tongue. She will serve only **foods** that are the right **texture** for the **baby's** development. She will feed small **servings** and encourage the **baby** to eat slowly. **Anna** will not put the **baby** to bed with a **bottle of juice** or **formula**. This practice promotes tooth decay.

Anna learned that **food** safety tips also apply to the **baby** and the **baby's food**. For instance, **Anna** will always wash her hands before handling **food** for the **baby**. As the **baby** begins to self-feed, **Anna** will wash the **baby's** hands, too. And, **Anna** will never use **food preparation**, dining areas or surfaces for changing diapers.

Foods to Avoid

Anna learned that there are many **foods** that she should not give the **baby** in the first year. Some of these **foods** could trigger an **allergic reaction**. Some could cause the **baby** to choke. Some are just not good for **babies**.

Babies can have an **allergic reaction** to many **foods**. She should not give these **foods** for the first year. **Anna** should not give the **baby citrus fruits** and **juices** (such as **oranges** or **grapefruit**), **tomatoes**, and **pineapples**. She should not give the **baby eggs**, **shellfish** (**shrimp**, **crab**, **oysters**, **crawfish**), or

chocolate. Babies can also easily have an **allergic reaction** to **nuts** or **peanut butter**.

Anna learned that **babies** and young children are at the highest risk for choking on **food**. She read that choking kills more young children than any other home accident. She wants to give her **baby** the right **foods**. She will not give the **baby foods** that are firm, smooth, or slippery. These include **hot dogs, nuts, hard candies, jelly beans, whole beans, whole grapes, berries, cherries, small pieces of watermelon, small tomatoes, and whole pieces of canned fruit**. Such **foods** can slide down the throat before the **baby** chews them. **Anna** also will not give the **baby** small, dry, or hard **foods**. These **foods** include **popcorn, nuts, whole grain kernels (like rice or corn), raw or partially cooked hard vegetables or fruits, pretzels and potato chips**. Such **foods** are hard to chew and can be easily swallowed whole. **Anna** will never give the **baby** sticky or tough foods. These include **peanut butter, raisins and other dried fruit, tough meats or large chunks of meat, marshmallows, chewing gum, or taffy**. These do not break apart easily. They would be hard to remove from the airway if the **baby** chokes. In general, **Anna** will avoid **foods** that are round and firm, small and dry, or sticky and large.

Anna learned that there are some common foods that are bad for **infants** and **babies**. **Anna** already knew that **undercooked meat** or **eggs** could be bad. **Honey** and products prepared with **honey** (like **graham crackers**) can be **contaminated** and make the **baby** very ill. These **foods** will be OK to eat when the **baby** gets older.

Anna should also avoid giving the **commercially prepared baby food desserts** or any **cakes, cookies, candies, and sweets** to the **baby**. These **foods** won't

hurt the **baby** but they are high in **sugar**. They contain less of the **nutrients** **babies** need. The **baby** doesn't need **sugar** in any form (such as **syrup** or **carbonated soft drinks**). **Low-calorie beverages** with **artificial sweeteners** are not good for the **baby** either. The **baby** should not have **seasoned food**, **salt**, or **foods** with too much **fat**.

Preventing Burns

If **Anna** decides to **bottle feed** the **baby**, she learned that she should never heat **baby's bottle** in the **microwave**. **Microwaves** can heat unevenly. The **formula** could get too hot. The **baby's** mouth or throat could be burned. Instead **Anna** learned that she should warm the **bottle** to room **temperature**. She can put the **bottle** under running hot **water** from a faucet. She can also place it in a bowl of hot **water** for a few minutes. She should then shake the **bottle** and test the **formula** too make sure it is not too hot.

Anna can use the **microwave oven** to heat **baby food** if she's very careful. However, she learned that **babies** accept room **temperature** and cold **food**, so warming is not really necessary. If a **microwave oven** is used to heat **food** removed from a jar, let the **food** sit for a few minutes, stir it thoroughly, and test its **temperature**.

Commercial Baby Food

Anna will use many of the same tips for buying **baby foods** that she already uses for other **foods**. For instance, she will not buy or use **foods** if the “use by” dates have passed. She will buy **baby food** jars that are clean on the outside and do not have a broken vacuum seal. The seal is broken if the button in the center of the top is popped out. **Anna** will read the **food labels**. She will choose single-**ingredient baby foods** and ones containing a small number of simple **ingredients**. She will store unopened jars in a cool dry indoor place—not in a refrigerator or in a vehicle, a garage, or outdoors.

Anna will not tap the jar lid or bang it to open it. This practice could chip glass from the jar into the **food**. Once she opens the jar, **Anna** will put the amount she thinks the **baby** will eat in a separate dish. She will not feed **food** to the **baby** directly from the jar. **Bacteria** from a **baby's** mouth can grow and multiply in the **food** before it is served again. **Anna** will discard any **food** left uneaten in the dish. She will refrigerate **food** left in the jar within 2 hours. **Anna** will use opened jars of **baby food** within 1 to 2 days after opening.

LOOKING AHEAD

Anna and **Bill** know that their **baby** will grow quickly. Although the **baby** will only get only **breast milk** or **formula** for the first few months, within a year almost half of what the **baby** eats will be **solid foods**. This will include **iron-fortified cereal**, yellow and green **vegetables**, small amounts of **meats** and **dairy products**, **fruits** and **juices** as well as **breast milk** or **formula**.

Anna, Bill, and the family want the baby to learn **healthy** eating habits. They will not feed the **baby** too much **food**. They will use **MyPyramid** to give the **baby** a balance of **protein, carbohydrates, fruits,** and **vegetables**. They will avoid **sugar, salt,** and **fats**. They won't use **food** as a bribe or reward. Instead, they will give their **baby** plenty of hugs, kisses, and attention.