

Time	Narration
00:01	Welcome to the <b>spoken tutorial</b> on the importance of the 1st 1,000 days of life.
00:08	In this tutorial, we will discuss the benefits of good nutrition during these days.
00:15	Also, we will learn how to nourish a baby during these days.
00:21	Some key topics mentioned in this tutorial are explained in other tutorials.
00:27	Please visit our website for more details.
00:31	Let us 1st understand what are the 1st 1,000 days of life.
00:37	The 1st 1,000 days of life start on the 1st day of pregnancy.
00:43	They end on a child's 2nd birthday.
00:48	How well a child grows in these 1,000 days decides the future.
00:55	If nourished well, the child can have a healthy future.
01:00	Good nutrition is necessary for a child's early development.
01:05	It plays a foundational role in enabling a child to grow, learn and succeed.
01:13	Let's discuss the role of nutrition at every stage in the 1st 1,000 days.
01:20	The 1st stage is pregnancy.
01:24	The brain of the fetus begins to grow from the 3rd week of pregnancy.
01:31	Thereafter, it develops at a very high speed during the entire pregnancy.
01:38	Most of the mothers are not even aware of their pregnancy during this time.
01:45	Therefore, all women in their reproductive age should consume nutritious food.
01:52	It is especially important for women planning a pregnancy.
01:58	Healthy lifestyle, body fat and muscle percentage before pregnancy are crucial.
02:06	Adolescent and pre-pregnancy nutrition is explained in other tutorials.
02:13	Please visit our website for more details.
02:17	During the 3rd trimester, the brain cells begin to be covered by a layer of fat.
02:25	It is called the <b>myelin sheath</b> .
02:29	This helps in passing the messages through the brain cells quickly.
02:35	By 7th month, brain of a fetus takes on a form that resembles an adult's brain.
02:43	In the 7th, 8th and 9th months, there is a rapid growth of the fetus's brain.
02:51	This rapid growth is not possible without one thing.
02:57	It is the nutrition that a baby gets from the mother's diet.
03:03	Mother's diet decides the baby's body fat and muscle percentage.
03:10	It also decides the baby's food preferences.
03:15	Mother should consume a variety of nutrient-dense local seasonal foods.
03:23	Adequate amounts of <b>iron</b> , <b>folate</b> and <b>calcium</b> should be present in her body.
03:30	Consumption of <b>iodine</b> sources is necessary during pregnancy.
03:36	She must eat adequate <b>protein</b> , good <b>fats</b> and essential nutrients.
03:44	Sources of these nutrients are given in other tutorials of the same series.
03:51	Otherwise, vital brain development processes can be impaired.
03:56	The baby could also have birth defects and cognitive defects.
04:03	A well-known example is <b>neural tube defects</b> .
04:08	<b>Folate</b> , <b>B12</b> and <b>choline</b> are needed for early development of the brain and spine.
04:16	Mother must take sufficient folate during pre-pregnancy.

04:22	She should take it in the early weeks of pregnancy as well.
04:28	Otherwise, the development of the <b>neural tube</b> can go wrong.
04:34	It leads to birth defects of the brain and spine.
04:39	The rate of a mother's weight gain during pregnancy decides the baby's health.
04:46	High weight gain in mothers who are not underweight is not good.
04:52	It increases the risk of childhood obesity.
04:57	Obesity during pregnancy puts women at risk for gestational diabetes.
05:05	This increases the baby's risk to be obese
05:08	and diabetic later in life.
05:13	A mother's lifestyle during pregnancy also plays an important role.
05:19	Severe stress, depression or violence during pregnancy must be avoided.
05:27	Such negative experiences can deeply affect a developing fetus.
05:34	Smoking can cause low birth weight or premature delivery.
05:40	It can also increase the baby's risk of obesity later in life.
05:48	Alcohol and tobacco should not be consumed.
05:53	Diseases should be prevented or treated immediately to minimise nutrient loss.
06:02	After the 270 days of pregnancy, infancy is the 2nd stage of the 1st 1,000 days.
06:11	During infancy, the child's brain develops motor functions such as balance.
06:20	It also develops the ability to create new memories and remember them later.
06:28	At this stage, proper newborn care is required.
06:33	Newborn care is explained in detail in other tutorials in the same series.
06:41	Breastmilk is the best food for a newborn's brain development.
06:47	It contains a variety of nutrients, growth factors and hormones.
06:54	It is made up of unique components for each mother and her baby.
07:01	No formula milk available in the market can be the same as mother's milk.
07:08	Its impact on brain development is incomparable.
07:13	Mother's milk has a high level of <b>DHA</b> and <b>EPA</b> .
07:19	They are important for brain development of the baby.
07:24	Exclusive breastfeeding for 6 months has many benefits.
07:30	Breastfeeding is associated with an increase in <b>IQ</b> .
07:36	It is also associated with getting more education and earning a better income.
07:44	This is true for children and adolescents across all income levels.
07:51	This brain development is not just because of breastmilk.
07:56	The experience of breastfeeding also contributes to it.
08:02	Breastfeeding involves plenty of mother-child interaction and nurturing.
08:09	It helps in strengthening a baby's sensory and emotional control.
08:16	These are critical for both cognitive and socio-emotional development.
08:23	To get these benefits, breastfeeding must be done using the proper technique.
08:29	Next, let's discuss brain development in the toddler stage.
08:35	A child's brain continues to grow and develop at a rapid pace.
08:42	During toddlerhood, a child's brain develops the ability to do complex tasks.
08:50	A toddler's brain is busy forming new connections between the brain cells.
08:56	At this time, such connections are created faster than at any other time in life.

09:05	This has many benefits.
09:08	It helps the child to learn new things faster.
09:13	It also helps the child to adapt to changing environments and circumstances.
09:21	In the 2nd year of baby's life, parts of the brain's language areas develop.
09:28	This leads to a sharp increase in a child's language abilities.
09:35	It also develops language learning capacity
09:38	and the ability to learn new skills.
09:43	Nutrition during this period remains critically important.
09:49	<b>Protein, iron, zinc</b> and <b>iodine</b> are essential to the toddler's developing brain.
09:57	Other important nutrients are <b>DHA, EPA, choline, B12</b> , etc.
10:07	<b>Iron</b> plays a significant role in brain development throughout the 1st 1,000 days.
10:14	Damage caused due to <b>iron</b> deficiency in these 1,000 days can be irreversible.
10:23	It leads to impaired learning and socio-emotional behaviour.
10:29	This includes: Less social interaction and alertness.
10:33	Increased irritability.
10:35	Increased cautiousness.
10:38	Less interest in indoor and outdoor games.
10:43	This can reduce the amount of attention and interaction given by caregivers.
10:51	This further contributes to the poor development of the child.
10:56	<b>Iron</b> deficiency also appears to affect the chemical substances in the brain.
11:03	It is associated with higher levels of anxiety
11:07	and depression later in life.
11:11	It impacts consequent job potential.
11:16	Toddlers need to be fed <b>iron</b> rich foods.
11:21	Otherwise, they are unlikely to consume enough <b>iron</b> .
11:26	Hence, after 6 months of age, complementary feeding is necessary.
11:32	Damage caused by malnutrition in the 1st 1,000 days is permanent.
11:39	It causes loss of <b>IQ</b> .
11:43	Chronic malnutrition during this critical period leads to stunting.
11:49	Loss of height or stunting in the 1st 2 years of life cannot be reversed.
11:57	It affects the child's future generations too.
12:02	Malnourished women give birth to malnourished sons and daughters.
12:08	Later on, these malnourished daughters grow up to become malnourished mothers.
12:15	Therefore they create a continuous cycle of malnourishment.
12:22	It takes 2 to 3 generations to combat stunting in future generations.
12:29	This is why the average height of a 19-year-old woman in India is only 5 feet.
12:38	The average height of a 19-year-old man in India is only 5 feet 4 inches.
12:47	All this can be prevented by improving nutrition during 1st 1,000 days.
12:54	This brings us to the end of this tutorial.

	Thank you for joining.
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