

Effectiveness of consuming date fruits during pregnancy and labor.

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ABSTRACT

During pregnancy a mother needs more nutrients rich diet which can include plenty of fresh fruits, vegetables and balanced diet. Dates can be an excellent choice because it enriches with fiber nutrients and vitamins. Vitamin A, Vitamin B1, Vitamin B2, vitamin B3 vitamin B4 and vitamin C and also it has antimicrobial and anti-inflammatory compounds which means it can fight against infectious disease. Consuming dates during gestation help in the production of prostaglandins and oxytocin which facilitate normal labor.

The date fruits have many health benefits. It is not only beneficial during pregnancy but it's very useful for all age groups. The aim of this review article is to determine the effectiveness of consuming date fruits in pregnancy and labor. Pregnancy is a stage in which there are various anatomical and physiological changes occurs in the female body and increase metabolic demand.

Keywords: Pregnancy, Labor, Infant, Maternal, Nutritional, Dates, Khajoor, Health, Knowledge, Morbidity, Mortality.

Introduction

Maternal mortality records collected in different countries over a period of several years have shown that for women of all races reproduction involves considerable physiological stress, as pregnancy, parturition and lactation make great nutritional demands on their bodies and other accompanied by additional hazards.

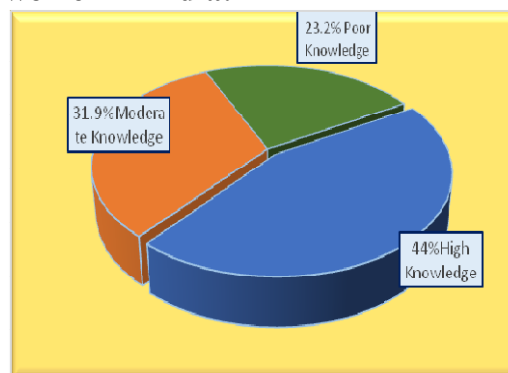
Reports on maternal mortality rate are very high in India and other developing countries and where mothers are malnourished. There is no doubt that with improvements in the income, diet and sanitary conditions, the maternal rate mortality rate will reduced and the nutrition and health of the health of the mothers.

Eating a nutritious diet during pregnancy is linked to good brain development and healthy birth weight of the baby and can reduce other unpleasant pregnancy related problems. Macronutrients and micronutrients both are essential during pregnancy. Most pregnant women can meet these increased nutritional needs by choosing a diet that can includes a variety of healthy foods such as-

1. Protein.
2. Complex carbohydrates.
3. Healthy types of fat like omega- 3s.
4. vitamins and minerals

Because during pregnancy there is extensive changes in maternal body composition and metabolism. There is considerable increase in the nutritional needs of mother as pregnancy advances.

Nutritional Knowledge and Dietary intake habits among pregnant women in India:



Nutritional Requirements during pregnancy

ICMR Recommended Dietary Allowances of an expectant Mother

Nutrient	Normal Adult Woman	Pregnant Woman (for 2 nd and 3 rd Trimesters)
Energy(kcal)		
• Sedentary	1875	+300
• Moderate	2225	+300
• Heavy	2925	+300
Protein(g)	50	+15
Fat	20	30
Calcium(mg)	400	1000
Iron(mg)	30	38
Retinol(ug)	600	600
Beta-Carotene(ug)	2400	2400
Riboflavin(mg)		

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• Sedentary	1.1	+0.2
• Moderate	1.3	+0.2
• Heavy	1.5	+0.2
Niacin(mg)		
• Sedentary	12	+2
• Moderate	14	+2
• Heavy	16	+2
Pyridoxine(mg)	2.0	2.5
Ascorbic Acid(ug)	40	40
Folic Acid(ug)	100	400
VitaminB12(ug)	1	1

Body

Pregnancy is the term used to describe the period in which a fetus develops inside a woman’s wombs or uterus. Pregnancy Usually Last About 40weeks, Or Just Over 9 Mothers, As Measured from The Last Mensural Period to Delivery. **(According to WHO Jan, 2017).**

Physiological adjustment during pregnancy

During pregnancy there is increase demand of food because of growing fetus and so many physiological changes in mother’s body.

- a) **Energy Metabolism:** Basal metabolism increases during pregnancy. Hytten and Leitch (1964) concluded that the increased energy cost due to the development of the fetus and other physiological changes average about 150Kcal per day during later half of pregnancy.
- b) **Alimentary function:** There is some evidence of reduced gastric tone, mortality and secretion. Nausea and constipation are commonly observed. The efficiency of absorption of calcium, iron, vitamin and certain nutrients is increased.
- c) **Renal Functions:** The glomerular filtration rate is considerably high during pregnancy as are the clearance of several substances such as creatinine, urea, uric acid etc.
- d) **Blood circulation:** The plasma volume increases on an average about 50% and red blood cell mass by about 20%.
- e) **Water balance:** The total water may increase by as seven liters in late pregnancy the kidney have some difficulty in depositing of surplus water ingested.

Average healthy well – fed Scottish women were estimated to gain 12.5kg during pregnancy as calculated by Hytten and Lettich (1964).

Diet as single factor has probably profound influence on the health of the mother. Consumption of ill -balanced diet and inadequate diets leads deterioration in the health of the mother and baby.

Effect of date fruit consumption on pregnancy and labor

Date fruit is commonly referred as date or date palm and date is also known as Khajurs in Hindi is an excellent sweetener. It is a flowering plant species in palm family.

What is date fruit?

Date fruit is stone fruit meaning it has single seed surrounded by an outer fleshy fruit (like mangoes, peaches). It’s growing on date palm tree.



Benefits of date fruits on health:

Dates are the micronutrient and macronutrient supplement that are essential of good health. There are several health benefits consuming the dates during pregnancy

1. **Antioxidants:** The dates provide various kinds of antioxidants (carotenoids, polyphenols) to treat different disease. Antioxidants protect your cells from radicals that may cause harmful reaction in your body to lead disease.
2. **Hormonal impact** of dates in pregnancy: Date fruit stimulate the receptors of oxytocin which make better uterine contractions during labor. This hormone helps the uterine muscles stretch and speeding up the delivery process and makes spontaneous labor.
3. **Laxative effect:** Date fruits are having laxative effect that prevents the mother from constipation.
4. **Iron rich:** Date fruits contain rich iron which prevents mothers from anemia during pregnancy.
5. **Water and salt balance:** Date fruits contain potassium that maintains electrolyte balance in the body.
6. **Vitamin K:** Babies are born with very small amounts of vitamin K stored in their bodies eating dates during pregnancy gives advance intake of vitamin K to the babies which can prevent the baby from bleeding disorder.
7. **Energy:** Date fruits are contained large of fructose and glucose which is responsible to provide good amount of energy to pregnant women.

When should one start eating dates during pregnancy?

She can begin to consume dates 36or37weeks of pregnancy.

How many dates should consume per day?

70to75grams or three to four dates she consumes every day.

Side effects of eating dates

There is no evidence suggesting that consuming dates have negative impact on pregnancy. Although there is no any harmful side effect of eating dates during pregnancy till the time you consume them in moderation. But in case of overeating following risk may persist:

- Hyperglycemia (increased blood sugar level).
- Risk for GDM (Gestational diabetes mellitus).
- Tooth Decay (in case of poor oral hygiene).
- Excessive gestational weight.

Research was conducted from August 2017 to December 2017 in King Fahad specialty hospital Tubak, KSA who were admitted in hospital for vaginal delivery. Study was conducted on 89 random participants who admitted for normal vaginal to assess the effect of date fruits on pregnancy and labor. Participants divided into three groups. 26participants consumed date fruits alone, thirty-two consumed date fruits followed with drinking of water and thirty-one served as control group. Participants with high-risk pregnancy excluded during sample collection. The study showed favourable effect of date fruits during pregnancy and labor. No significance difference between date fruit consumers and their counterparts on cervical dilatation, frequency, regularity in uterine contraction. The women who consumed date fruits are less likely to have me conium-stained liquor and variations in fetal heart rate. The APGAR score at 5min better among the new born babies whose mothers consumed date fruits during pregnancy.

Conclusion

During pregnancy a mother needs more nutrients rich diet which can include plenty of fresh fruits, vegetables and balanced diet. Dates can be a good choice because it enrich with fiber nutrients and vitamins. Pregnancy is the term used to describe the period in which a fetus develops inside a woman's wombs or uterus. During pregnancy there are increase metabolic demands. Diet as single factor has probably profound influence on the health of the mother. Healthy pregnancy is all about eating healthy date fruits can one of the good choices to make healthy pregnancy. Dates contains micronutrient and macronutrient supplement that are essential of good health. There are several health benefits consuming the dates during pregnancy such as it provides energy to the mother's antioxidant, prevent from constipation and helps in uterine contractions.

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