

# Your Smoking.. affects your baby



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Don't  
Smoke Your  
Life Away

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A baby in the womb gets everything from its mother...What do you want to give your baby?

- Cigarette smoke contains over 4000 different compounds including carbon monoxide, hydrogen cyanide, carcinogens and trace elements such as lead, nickel and cadmium
- The two main compounds suspected of causing the harmful effects on the developing fetus during pregnancy are carbon monoxide and nicotine

### **Carbon Monoxide causes:**

- Fatigue
  - Chest Pain
  - Impaired Vision
  - Dizziness
  - Headache
  - Nausea
  - Confusion
  - Reduced Brain Functions
  - Death
- Nicotine is generally regarded as the active ingredient in tobacco responsible for the majority of its effects. It has both cardiovascular and central nervous system effects.
- Two separate types of central nervous system stimulation account for the positive stimulation responsible for the addictive properties of nicotine.

Nicotine is known to cross the placenta reaching levels in the amniotic fluid and fetus that exceed those of the mother. Nicotine is also measurable in the breast milk of smoking mothers as well as mothers passively exposed to cigarette smoke. Prenatal nicotine exposure predisposes the brain to nicotine addiction in adolescence.



## 1 - FERTILITY

### In men,

- Smoking has been shown to cause decreased sperm motility; abstinence from smoking leads to return of motility

### In women,

- Smoking affects several crucial processes such as ovulation, tubal transport and implantation

## 2 - SPONTANEOUS ABORTION

- Ballantyne in 1902 noted that miscarriages were more common in female tobacco factory workers
- Nicotine has been shown to be a potent vasoconstrictor reducing uterine and placental blood flow. These properties may account for the increase in spontaneous abortions seen in smoking women
- The presence of cotinine, (nicotine metabolite with a long half-life) was independently and significantly related to an increased risk of spontaneous abortion

## 3 - PLACENTAL PROBLEMS

### Placental Abruption

The premature detachment of the normally implanted placenta, accounts for 15 to 25% of all perinatal mortality due to complications such as preterm delivery, fetal distress, maternal coagulopathy and ischemic injury to other organs. The proposed mechanism for development of placental abruption in smoking women is explained by reduction in blood flow to the placenta resulting in decidual necrosis at the periphery of the placenta.



## Placenta Previa

The implantation of the placenta in the lower part of the lower uterine segment in advance of the fetal presenting part can be complicated by prematurity, and hemorrhage. The increase in placenta previa in smoking women may be explained by placental enlargement which may be a compensatory mechanism for reduction in oxygen transport to the fetus caused by carbon monoxide in cigarette smoke, thickening of the trophoblastic basal lamina and a reduction in the size of the fetal capillaries.

## 4 - LOW BIRTH WEIGHT

- A definite, well-established relationship exists between smoking and low birth weight (birth weight less than 2500 grams)
- The average reduction in birth weight seen in smoking women is 200 grams
- This results in a doubling of the incidence of low birth weight infants
- The risk and magnitude of low birth weight is related to the number of cigarettes smoked during pregnancy

## 5 - PERINATAL MORTALITY

- There is a 33% increase in perinatal (after 20 weeks gestation) and neonatal (in the first 28 days of age) mortality in smoking women
- This increase occurs independently of the decrease in birth weight
- Maternal smoking increases the perinatal death risk for mothers smoking less than one pack per day 20% and 35% for those mothers smoking more than one pack per day

## 6 - SUDDEN INFANT DEATH SYNDROME (SIDS)

- There is a direct link between parent cigarette smoking and SIDS
- Of the various risk factors for SIDS, maternal smoking is one of the most predictive

## 7 - INTELLECTUAL FUNCTION & IQ

A wide variety of cognitive, achievements and behavioral deficits such as attention deficit hyperactivity disorder (ADHD) have been identified in the children of women smoking during pregnancy.

## 8 - CHILDHOOD CANCER

- Components of cigarette smoke are known to be transported over placental membranes and act as mutagens in fetal tissues = trans-placental carcinogens
- An increased risk for all cancers is found as well as an association of acute lymphocytic leukemia and lymphoma with maternal smoking has been confirmed in several studies

### IT IS NEVER TOO LATE TO QUIT...

- Every cigarette you decide not to smoke will help your and your baby's health
- Much of the damage caused by smoking can be reversed
- Quitting is the most important thing you can do to improve your and your baby's health

### Benefits to your health and your baby's the minute you stop smoking!

**20 minutes** : Blood pressure & pulse return to normal

**1 hour** : Risks of complications during pregnancy become less

**8 hours** : Nicotine levels fall & circulation improves

**1 day** : Lungs begin to work better & carbon monoxide is removed from body

**2 days** : Nicotine is removed from the body & smoking is no longer affecting the baby's growth

**3 days** : Energy levels increase & breathing becomes easier

**2 weeks** : Daily tasks become easier to do & withdrawal symptoms begin to ease

**1 month** : Withdrawal symptoms have stopped & breathing and energy levels continue to improve

**6 months** : Your baby is less likely to suffer breathing problems, asthma, wheezing, glue ear or be hospitalized. Your children are less likely to smoke when they get older. Risks of heart attack, cancer, smoking diseases begin to fall



## Quit Now !!

