

*"We wouldn't change him for the world but we would like to change the world for him"*

# Down Syndrome

(Prenatal Screening)



## DEPRESSING FACTS

### DOWN SYNDROME ?

Down Syndrome or Down's syndrome or Trisomy 21, is a chromosomal condition, caused by the presence of all or part of an extra 21st chromosome.

Effective screening for trisomy 21 is provided by a combination of maternal age, fetal nuchal translucency (NT) thickness, maternal serum free  $\beta$ -human chorionic gonadotropin  $\beta$ -hCG and pregnancy associated plasma protein-A (PAPP-A) at around 11-13 week's gestation.

1. The average IQ of children with Down Syndrome is around 50, compare to normal children with an IQ of 100.

2. Eighty to eighty-five percent of children with Down Syndrome are born to women more than 35 years of age.

3. The average life expectancy of a person with Down Syndrome is 30 years of age.

1. Down Syndrome occurs in all human populations.

2. Individuals with Down Syndrome have a higher risk for many clinical conditions. The medical consequences of the extra genetic material in Down Syndrome are highly variable and may affect the function of any organ system or bodily process.

3. Some problems are present at birth, such as certain heart malformations. Other become apparent over time, such as epilepsy.

4. Free  $\beta$ -hCG increases to a maximum at around 9 weeks and decrease thereafter.

5. The measured serum concentrations of these placental products in Down Syndrome are affected by maternal characteristics, including racial origin, weight method of conception as well as the machine and reagents used for the analysis.

6. In unaffected pregnancies the maternal serum concentration of PAPP-A increases with gestation between 7 & 14 weeks. Between 8 & 9 weeks, PAPP-A concentrations double and as gestation increases, the rate of increase drops to around 50% between 12 & 13 weeks.

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