

Table 1. Prenatal screening tests available and how they compare.

	First Trimester Screening (FTS)	Integrated Prenatal Screening (IPS)	Non-Invasive Prenatal Testing (NIPT)/cfDNA screening	Serum Integrated Prenatal Screening (SIPS)	Maternal Serum Screening (MSS)
Components of test All screens use maternal age in risk assessments u/s = ultrasound NT = nuchal translucency see page 7 for more	<ul style="list-style-type: none"> One maternal blood test for pregnancy related hormones u/s for NT 	<ul style="list-style-type: none"> Two maternal blood tests for pregnancy related hormones u/s for NT 	One maternal blood test for cell-free (cf) DNA	Two maternal blood tests for pregnancy related hormones	One maternal blood test for pregnancy related hormones
Gestational age at first trimester blood test	11 – 13 weeks + 6 days	11 – 13 weeks + 6 days	9-10 weeks onward	11 – 13 weeks + 6 days	Not applicable
Gestational age at the NT ultrasound	11 – 13 weeks + 6 days	11 – 13 weeks + 6 days	Not applicable	Not applicable	Not applicable
Gestational age at second trimester blood test	Not applicable	15 - 20 week + 6 days	Not applicable	15 - 20 week + 6 days	15- 20 week + 6 days
Detection rate	<i>Meaning, how many pregnancies where the baby really does have Down syndrome will be flagged as increased risk (screen positive) by this test?</i>				
	75-90%	85-90%	99%	80-90%	80%
False positive rate	<i>Meaning, how many pregnancies will this test flag as increased risk (screen positive) BUT the baby does NOT really have Down syndrome?</i>				
	about 3-9%	about 2-4%	Less than 0.1%	about 2-7%	about 5%
Conditions screened for	<ul style="list-style-type: none"> Down syndrome Trisomy 18 	<ul style="list-style-type: none"> Down syndrome Trisomy 18 Open neural tube defects 	<ul style="list-style-type: none"> Down syndrome Trisomy 18 Trisomy 13 Sex chromosome differences 	<ul style="list-style-type: none"> Down syndrome Trisomy 18 Open neural tube defects 	<ul style="list-style-type: none"> Down syndrome Trisomy 18 Open neural tube defects

April 2017

Prenatal screening is moving toward results being available earlier in pregnancy, allowing expectant couple more time for decision making and access to additional services. Already many centres are offering **enhanced FTS (eFTS)**. This screen performs better than traditional FTS with a higher detection rate and lower false positive rate. **eFTS** is expected to be just as good as IPS, but with results available earlier in pregnancy. You can expect IPS to be phased out and eFTS, NIPT/cfDNA, SIPS and MSS to only be available. This table will be updated online at www.geneticseducation.ca as information becomes available.

A prenatal screening process map

