



Dear Health-Care Providers,

In 2017, the Ministry of Health and Long-Term Care announced the formation of a provincial screening program (Prenatal Screening Ontario/ PSO) with the intention of “enhancing access to standardized and high-quality prenatal screening across the province.”

One of the program’s mandates is to help health-care providers choose and arrange the best screening tests possible for their patients, in the most clear and efficient way. With this in mind, PSO has worked with the provincial multiple marker screening (MMS) labs to develop a **standardized requisition** for each of the three labs.

The updated requisition form for the **North York General Hospital (NYGH)** maternal serum screening lab can be found on both the NYGH website ([www.nygh.on.ca/genetics/prenatal](http://www.nygh.on.ca/genetics/prenatal)) and the PSO website ([www.prenatalscreeningontario.ca](http://www.prenatalscreeningontario.ca)), which includes additional documents with helpful hints for ordering providers.

**PLEASE TAKE NOTE OF THE FOLLOWING IMPORTANT CHANGES:**

1. The new requisition form will come into effect April 1, 2020. Please discard all old forms.
2. The crown-rump length (CRL) cut-off for enhanced first trimester screening (eFTS) is now 45mm to 84mm (formerly 41mm). This is considered the optimal time to obtain a high quality nuchal translucency (NT) measurement and corresponds to 11 weeks 2 days – 13 weeks 3 days gestation.
3. **Second trimester AFP for routine open neural tube defect (oNTD) risk assessment has been discontinued by all MMS labs in Ontario.** As per the 2017 SOGC guidelines, the 18-20 week anatomy ultrasound is recommended as the primary screen for fetal oNTD, except in the absence of good quality ultrasound examination. MS-AFP screening for oNTD will only be performed if this criterion is met. All requests not meeting this criterion **will be declined.**
4. None of the MMS labs in Ontario will report a risk assessment for preeclampsia or placental function.

If you have questions or concerns regarding the above information, please do not hesitate to contact Prenatal Screening Ontario at 1-833-351-6490 or [pso@bornontario.ca](mailto:pso@bornontario.ca).

# WHAT YOU NEED TO KNOW ABOUT THE UPDATED PROVINCIAL PRENATAL SCREENING REQUISITION

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## *What has changed?*

1. In line with the 2017 updated SOGC guidelines, maternal serum alpha fetoprotein (MS-AFP) testing is only recommended for those individuals with no access to a good quality ultrasound examination. The primary screen for fetal neural tube defects is the demonstration of normal brain and spine anatomy.
2. Integrated prenatal screening (IPS) is no longer available. Enhanced first trimester screening (eFTS) and maternal serum quadruple screening (MSS-Quad) will continue to screen for trisomy 21 and trisomy 18.
3. The crown-rump length (CRL) cut-off for eFTS is now 45mm to 84mm (formerly 41mm). This is considered the optimal time to obtain a high quality nuchal translucency (NT) measurement.
4. Sonographers are now required to print and sign their names on the requisition.

## *What stays the same?*

1. Clinical information – this section is to be filled out by the ordering provider prior to the bloodwork.
2. Ultrasound information
  - a. When ordering eFTS – this section is to be completed by the sonographer performing the NT scan.
  - b. When ordering MSS-Quad – this section is to be completed by the ordering provider.
3. Missing information decreases the quality of the screen and can potentially delay the results.
4. Prenatal screening results will be reported to the ordering provider within 7-10 business days.

## *Prenatal Screening – Step by Step*

- ✓ Review screening options and confirm that the patient/client consents to screening for Trisomy 21/18
- ✓ Based on the patient/client's gestation, determine if eFTS or MSS-Quad is appropriate
- ✓ Complete the prenatal screening requisition, specifically "Test Requested" and "Clinical Information"
- ✓ Provide a copy of the completed requisition to the patient/client
- ✓ If eFTS
  - Arrange NT ultrasound for the patient/client between 11 weeks + 2 days and 13 weeks + 3 days
  - Confirm that the patient/client is aware of the need for bloodwork (to be completed **after** the NT ultrasound) and that the patient/client knows where & when to have their blood drawn
- ✓ If MSS-Quad
  - Ultrasound dating is the preferred method of dating to ensure a quality screen
  - Confirm that patient/client is aware of where & when their blood should be drawn (14w0d-20w6d)

## STEP BY STEP ORDERING – HELPFUL HINTS

Test Requested (choose one only)	Clinical Information- please complete all sections	
<p>1 Only select the eFTS or Maternal Serum Screening below if:</p> <ul style="list-style-type: none"> <li>• NIPT has not been ordered in this pregnancy</li> <li>• NIPT has been ordered, but has been uninformative</li> </ul>	<p>5 Weight _____ <input type="checkbox"/> kg or <input type="checkbox"/> lbs</p>	
<p>2 <input type="checkbox"/> <b>Enhanced First Trimester Screen (eFTS)</b> (eFTS: NT, PAPP, FBHCG, PIGF, AFP) [CRL 45-84mm]; corresponding to approximately 11 weeks and 2 days to 13 weeks and 3 days gestation. Requires nuchal translucency (NT) ultrasound and blood sample</p>	<p>4 <b>Racial origin:</b></p> <p><input type="checkbox"/> White</p> <p><input type="checkbox"/> Black</p> <p><input type="checkbox"/> Asian</p> <p><input type="checkbox"/> South East Asian</p> <p><input type="checkbox"/> Indigenous</p> <p><input type="checkbox"/> Other: _____ <small>(please specify)</small></p>	
<p><input type="checkbox"/> <b>Maternal Serum Screen</b> [14w – 20w6d] (AFP, hCG, UE3, inhibin A) Ultrasound dating preferred to LMP dating</p>	<p><b>Last Menstrual Period (LMP):</b> _____ (YYYY/MM/DD) <i>(Ultrasound dating is required for eFTS)</i></p> <p><b>Was this patient on insulin prior to pregnancy?</b> <input type="checkbox"/> Yes</p> <p><small>(Note: <b>not</b> gestational diabetes)</small></p>	
<p>3 <b>Maternal Serum AFP only</b> [15w – 20w6d] SOGC recommends AFP testing only when ultrasound examination has failed to provide a sufficiently clear image of the neural tube to make a decision regarding the likelihood of Open Neural Tube Defect</p> <p><input type="checkbox"/> Poor visibility on anatomy scan</p>	<p><b>Smoked cigarettes EVER during this pregnancy?</b> <input type="checkbox"/> Yes</p> <p><b>Complete the following if this is an IVF pregnancy</b></p> <p>Egg donor Birth Date (even if patient is donor): _____ (YYYY/MM/DD)</p> <p>Egg Harvest Date : _____ (YYYY/MM/DD)</p> <p>6</p>	
<p><b>Ultrasound (U/S) Information</b> Sonographer or ordering provider to complete. Identify U/S operator code only if doing NT Scan</p>		
<p>7 <b>Singleton/Twin A:</b></p> <p>U/S Date: _____ (YYYY/MM/DD)</p> <p>CRL: _____ <input type="checkbox"/> cm <input type="checkbox"/> mm</p> <p>Crown-Rump Length</p> <p>BPD: _____ <input type="checkbox"/> cm <input type="checkbox"/> mm</p> <p>Bi-Parietal Diameter</p> <p>NT: _____ mm</p> <p>Nuchal Translucency CRL 45.0-84.0 mm</p> <p><b>Twin B:</b> <input type="checkbox"/> dichorionic <input type="checkbox"/> monochorionic <input type="checkbox"/> uncertain <input type="checkbox"/> IUFD</p> <p>CRL: _____ <input type="checkbox"/> cm <input type="checkbox"/> mm</p> <p>Crown-Rump Length</p> <p>BPD: _____ <input type="checkbox"/> cm <input type="checkbox"/> mm</p> <p>Bi-Parietal Diameter</p> <p>NT: _____ mm</p> <p>Nuchal Translucency CRL 45.0-84.0 mm</p>		
<p><b>Sonographer's information:</b></p>		
<p>8 <b>Operator Code:</b> _____ <b>Site:</b> _____ <b>Site phone #:</b> (____) _____ - _____</p> <p>Name: _____ Signature: _____</p>		
<p>9 <b>Ordering Provider:</b> _____ <b>Additional Report To:</b> _____</p> <p>Address: _____ Address: _____</p> <p>Phone: (____) _____ - _____ Fax: (____) _____ - _____</p> <p>Signature : _____ Billing # _____ Provider Billing # _____</p>		

## STEP BY STEP ORDERING – HELPFUL HINTS

The following tips are designed to help decrease delays in processing time and will help to ensure the most accurate multiple marker screen (MMS) result.

1. It is recommended that multiple marker screening (MMS) not be ordered if non-invasive prenatal testing (NIPT) has been completed or is pending.
  - a. **\*Note – patients who have NIPT should still have a NT ultrasound.**
2. Clearly indicate screening test of choice – based on gestational age.
3. Note that maternal serum alpha-fetoprotein (MS-AFP) analysis for open neural tube defects (oNTD) is no longer performed if patient has access to good quality ultrasound.
4. Racial origin should be as accurate as possible and should reflect the pregnant individual's ethnic background, not simply their birth country. This information should be obtained directly from the patient whenever possible.
5. Patient weight, including units (lbs vs. kg), is necessary.
6. Pregnancies conceived using in vitro fertilization (IVF) require the donor's date of birth and the egg harvest date. **\*Note – this information is required regardless of whether an egg donor is used or the patient is the donor (i.e., egg freezing).**
7. Ultrasound information:
  - a. When ordering eFTS – this section is to be completed by the sonographer performing the NT scan.
  - b. When ordering MSS-Quad – this section is to be completed by the ordering provider.
8. Sonographer operator code, name, and signature are required.
9. Complete provider contact information is necessary to ensure timely reporting.