

## Laboratory Tests to Order by Trimester

Testing can be ordered using the Standard Out-Patient Laboratory Requisition for Maternity Care (<https://www2.gov.bc.ca/assets/gov/health/forms/1935fil.pdf>) unless specified below

1 <sup>st</sup> Trimester	
Recommended to All	Blood group and Antibody screen  <i>Canadian Blood Services Perinatal Screen Request:</i> <a href="https://www.blood.ca/sites/default/files/1000107776_2020-05-04.pdf">https://www.blood.ca/sites/default/files/1000107776_2020-05-04.pdf</a>
	CBC
	Ferritin
	HIV  <i>BC Centre for Disease Control Serology Screening Requisition:</i> <a href="http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Forms/Labs/SerologyReq.pdf">http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Forms/Labs/SerologyReq.pdf</a>
	Syphilis
	Hepatitis B (HBsAg)
	Rubella antibody (if 1 <sup>st</sup> pregnancy or no record of immunity or vaccination)
	Urine or swab Chlamydia and Gonorrhea
	Urine C&S

1 <sup>st</sup> Trimester		Risk Factors
Recommended if Risk Factors Present	TSH	<ul style="list-style-type: none"> <li>• Age &gt; 30 years</li> <li>• More than 2 prior pregnancies</li> <li>• History of pregnancy loss, preterm delivery, or infertility</li> <li>• Type 1 diabetes or other autoimmune disorders</li> <li>• Morbid obesity (BMI ≥ 40 kg/m<sup>2</sup>)</li> <li>• History of hypothyroidism/hyperthyroidism or current symptoms or signs of thyroid dysfunction</li> <li>• Family history of autoimmune thyroid disease or thyroid dysfunction (1st degree relative)</li> <li>• History of head or neck radiation or prior thyroid surgery</li> <li>• Known TPO antibody positivity or presence of a goitre</li> <li>• Currently receiving levothyroxine replacement</li> <li>• Use of amiodarone or lithium, or recent administration of iodinated radiologic contrast</li> <li>• Residing (or recently resided) in an area of known moderate to severe iodine insufficiency</li> </ul> <p>As per GPAC Guideline: <a href="#">Thyroid Function Testing in the Diagnosis and Monitoring of Thyroid Function Disorder</a></p>
	Hepatitis C (anti-HCV)	<ul style="list-style-type: none"> <li>• Immigrants from endemic areas</li> <li>• IV and permucosal drug users</li> <li>• Unprotected sex with multiple partners</li> </ul> <p>As per BC CDC Guideline (Table 3-1): <a href="#">Communicable Disease Control – Hepatitis C</a></p> <p>See also <a href="#">Perinatal Infections: Screening</a></p>
	Varicella IgG	<p>If no documented history of infection, or vaccination with two age-appropriate doses</p> <p>See <a href="#">Perinatal Infections: Screening</a></p>
	HSV	<p>To confirm or exclude an uncertain history of genital herpes infection or in situations where the pregnant woman/person's partner has a history of genital HSV</p> <p>See <a href="#">Perinatal Infections: Screening</a></p>

	<p>Hemoglobin A1C or Fasting glucose</p> <ul style="list-style-type: none"> <li>• Body mass index &gt;30 kg/m<sup>2</sup></li> <li>• Age ≥40 years (at gestational time of assessment)</li> <li>• First-degree relative with type 2 diabetes</li> <li>• Member of high-risk population (e.g. African, Arab, Asian, Hispanic, Indigenous or South Asian descent, low socioeconomic status)</li> <li>• History of prediabetes (impaired glucose tolerance, impaired fasting glucose, or A1C 6.0%–6.4%)</li> <li>• History of GDM</li> <li>• History of delivery of a macrosomic infant</li> <li>• Presence of associated diseases: <ul style="list-style-type: none"> <li>○ History of pancreatitis</li> <li>○ Polycystic ovary syndrome</li> <li>○ Acanthosis nigricans</li> <li>○ Hyperuricemia/gout</li> <li>○ Non-alcoholic steatohepatitis</li> <li>○ Psychiatric disorders (bipolar disorder, depression, schizophrenia)</li> <li>○ Human immunodeficiency virus-1 (HIV) infection</li> <li>○ Obstructive sleep apnea</li> <li>○ Cystic fibrosis</li> </ul> </li> <li>• Use of drugs associated with diabetes: <ul style="list-style-type: none"> <li>○ Glucocorticoids</li> <li>○ Atypical antipsychotics</li> <li>○ Statins</li> <li>○ Highly active antiretroviral therapy</li> <li>○ Anti-rejection drugs</li> </ul> </li> </ul> <p><i>As per the Diabetes Canada Guideline (Table 1): <a href="#">Screening for Diabetes in Adults</a></i></p> <p><i>See Gestational Diabetes, <a href="#">PSBC Screening for Gestational Diabetes Guideline</a></i></p>
Offer to All	<p>Prenatal Genetic Screening for Trisomy 21, Trisomy 18, ONTD</p> <p><i>BC Prenatal Genetic Screening Lab Requisition:</i>  <a href="https://cms.psbchealthhub.ca/sites/default/files/2023-09/PGSLabReq_Fillable.pdf">https://cms.psbchealthhub.ca/sites/default/files/2023-09/PGSLabReq_Fillable.pdf</a></p> <p><i>See <a href="#">Prenatal Genetic Screening &amp; Investigations</a></i></p>

1 <sup>st</sup> Trimester		Risk Factors
Offer if Risk Factors Present	Carrier screening for Thalassemia and Hemoglobinopathy (if not previously done)	African, Mediterranean, Middle Eastern, South and East Asian, Western Pacific, Caribbean, and/or South American descent  See <a href="#">Preconception Health Care</a> , <a href="#">Family History</a>
	Carrier screening for Tay-Sachs, Canavan, Fanconi anemia, Familial Dysautonomia (if not previously done)	<ul style="list-style-type: none"> <li>Offer screening for all four conditions if both biological parents/egg donor/sperm donor are of Ashkenazi Jewish ancestry</li> <li>Offer screening for Tay-Sachs only if: <ul style="list-style-type: none"> <li>Only one person is of Ashkenazi Jewish ancestry</li> <li>One or both biological parents/egg donor/sperm donor are French Canadian from Eastern Quebec</li> </ul> </li> </ul> <p>Genome Diagnostics Laboratory Requisition:  <a href="http://genebc.ca/uploads/FORMS/CWGG_REQ_0000_General_Requisition_extend.pdf">http://genebc.ca/uploads/FORMS/CWGG_REQ_0000_General_Requisition_extend.pdf</a></p> <p>Ashkenazi Jewish Carrier &amp; Tay Sachs Enzyme Screening Supplemental Information Form:  <a href="http://genebc.ca/uploads/FORMS/CWMG_REQ_0110_AJ_Carrier_and_Tay_Sachs_Enzyme_Screening_Supp_Info_Form.pdf">http://genebc.ca/uploads/FORMS/CWMG_REQ_0110_AJ_Carrier_and_Tay_Sachs_Enzyme_Screening_Supp_Info_Form.pdf</a></p> <p>See <a href="#">Preconception Health Care</a>, <a href="#">Family History</a></p>
Not Recommended Routinely to All	CMV	
	EBV	
	Toxoplasmosis	
	Parvovirus	

2 <sup>nd</sup> Trimester	
Recommended to All	2-step gestational diabetes screening at 24-28 weeks <ul style="list-style-type: none"> <li>• Screen using non-fasting 50 g glucose challenge test</li> <li>• If 50 g screen is positive proceed to 75 g oral glucose tolerance test</li> </ul> <p>See Gestational Diabetes, <a href="#">PSBC Screening for Gestational Diabetes Guideline</a></p>
	Repeat CBC
	Repeat blood group and Antibody screen (if Rh negative, and in all 1 <sup>st</sup> pregnancies) <p>Canadian Blood Services Perinatal Screen Request:  <a href="https://www.blood.ca/sites/default/files/1000107776_2020-05-04.pdf">https://www.blood.ca/sites/default/files/1000107776_2020-05-04.pdf</a></p> <p>See <a href="#">Red Blood Cell Antigens</a></p>

Early 3 <sup>rd</sup> Trimester		
3 <sup>rd</sup> Trimester		Risk Factors
Recommended at 28-32 weeks if Risk Factors Present	Repeat HIV	<ul style="list-style-type: none"> <li>• Women/person who initially test negative for HIV in pregnancy and continue to engage in high risk behaviours:               <ul style="list-style-type: none"> <li>○ Sharing needles or any other components during intravenous drug use</li> <li>○ Unprotected sex with multiple partners</li> <li>○ Unprotected sex with a known HIV-positive individual</li> <li>○ Unprotected sex with a partner who is from an HIV-endemic area</li> <li>○ Unprotected sex with a partner participating in known high-risk behaviour</li> </ul> </li> </ul> <p>As per JOGC Guideline: No. 185-HIV Screening in Pregnancy</p> <p>BC Centre for Disease Control Serology Screening Requisition:  <a href="http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Forms/Labs/SerologyReq.pdf">http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Forms/Labs/SerologyReq.pdf</a></p> <p>See also <a href="#">Perinatal Infections: Screening</a></p>

	Repeat Syphilis	<ul style="list-style-type: none"> <li>• Being sexually active with multiple partners, casual partners, anonymous partners or a new partner</li> <li>• Sex with someone from a country/region with high prevalence of syphilis</li> <li>• Sexual activity without use of a barrier such as condoms</li> <li>• Sexual contact with a known case of syphilis</li> <li>• Previous syphilis, HIV infection or other STI</li> <li>• Member of key population (including housing instability, substance use, and mental illness)</li> </ul> <p>As per PSBC <a href="#">Clinical Algorithm for Syphilis Screening in Pregnancy</a></p> <p>See also <a href="#">Syphilis</a></p>
	Repeat Chlamydia and Gonorrhea	<ul style="list-style-type: none"> <li>• Being sexually active and under 25 years of age</li> <li>• Sex with a person who has gonorrhea or chlamydia</li> <li>• Sex with a new partner or multiple partners during current pregnancy (e.g., non-monogamous relationship), without barrier protection</li> <li>• History of sexually transmitted and blood-borne infections (STBBI) or involvement in activities that may increase the risk for potential exposure to STBBI (e.g., street involvement, substance use).</li> </ul> <p>See <a href="#">Ophthalmia Neonatorum Prophylaxis, Perinatal Infections: Screening</a></p>

Later 3 <sup>rd</sup> Trimester	
Recommended to All	CBC
	GBS vaginal/rectal swab 36 weeks and onwards (earlier with history of preterm labour)  See <a href="#">Group B Streptococcus Screening and Prophylaxis</a>

Delivery	
<b>Recommended to All</b>	<p>Syphilis during delivery episode of care</p> <p>For home births, Syphilis screen &gt;35 weeks</p> <p>See <a href="#">Syphilis</a></p>
<b>May be Ordered, as per Site Policy</b>	Repeat CBC, Blood group, and Antibody screen