



State Hygienic Laboratory

at the University of Iowa



Iowa Maternal Screen

Specimen Collection and Shipping Instructions

Submission Requirements

1. A minimum of 1 mL of serum is required for testing.
2. Refer to following table, "Which test should I order" for requirements of when to draw sample.
3. This is dependent on sample being submitted for a 1st trimester or 2nd trimester test.
4. Label tube with patient's name or unique identifier, age or date of birth (DOB) and the date of collection.
UNLABELED SPECIMENS WILL NOT BE TESTED.
5. A completed **Iowa Maternal Screen Test Request Form** must accompany the specimen.

Specimen Collection and Handling

1. Collect blood in a red top vacutainer tube or gold top serum separator tube (SST).
2. Allow blood to clot, then centrifuge. If collected in a red top tube, remove serum to an aliquot tube.
3. Keep serum refrigerated, but DO NOT FREEZE, if not sending immediately.
4. The specimen must be tested by the SHL within 9 days of the draw date.
5. Wrap specimen tube in absorbent material, and place into a biohazard specimen transport bag.

Test Request Form

1. Complete the **Iowa Maternal Screen First Trimester/Integrated Test Request Form** or the **Iowa Maternal Screen NTD/Quad Test Request Form** including all patient identifiers, by going online to: <http://www.shl.uiowa.edu/testmenu/formgenerator.xml>. Please fill out as completely as possible. Missing information may delay screening results. Incorrect information, especially incorrect dating, will result in inaccurate risk assessment. Be sure to include the clinician's name and phone number. For those tests with nuchal translucency (NT) requirement be sure to include the sonographer's name.
2. Testing is dependent upon complete and accurate information; therefore, results may be delayed if information is not provided.
3. Refer to the following table, "Which test should I order?" for helpful information.

Shipping Instructions

1. Include the appropriate completed **Iowa Maternal Screen Test Request Form** in the outside pocket of the biohazard specimen transport bag.
2. Specimens(s) should be shipped overnight at 2-8°C.
3. Specimen(s) must be received by the State Hygienic Laboratory (SHL) within 9 days of draw date.
4. Send to the State Hygienic Laboratory in Coralville (see address in footer).

Contact Information

1. Order **Maternal Screening/Serology Kits** online at <https://shl.uiowa.edu/request-clinical-testing-or-kits> or call (319) 335-4500
2. For Maternal Screen test questions: (319) 335-4247
3. For test interpretation or revised dating information: UIHC OB/GYN Counseling Office: (319) 356-8892
4. For billing questions: (319) 335-4442

Revision 04/2026

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Which test should I order?

Test Name	Screens for:			Test Requirements	Comments
	Down Syndrome	Trisomy 18	Open Neural Tube Defects		
Integrated Screen Sample 1 (1 st trimester) Sample 2 (2 nd trimester)	Yes	Yes	Yes	Dating by ultrasound crown rump length (CRL). Serum samples drawn in BOTH first and second trimesters. First sample drawn when CRL is 32-80 mm (10 weeks-13 weeks 6 days). Second sample drawn between 15 weeks-20 weeks 6 days . Nuchal translucency (NT) measurement by a certified sonographer** may be submitted if available but is NOT required.	<u>Detection rates:</u> 85% Down Syndrome 80% Trisomy 18 85% neural tube defects <u>False positive rates:</u> 2.6% without NT 1.9% with NT Results are available after the second serum sample is processed.
Quad Screen	Yes	Yes	Yes	Dating by LMP or ultrasound (ultrasound preferred) Serum sample drawn in second trimester between 15 weeks-20 weeks 6 days .	<u>Detection rates:</u> 79% Down syndrome 80% Trisomy 18 85% neural tube defects <u>False positive rate:</u> 3.5%



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Which test should I order?					
Test Name	Screens for:			Test Requirements	Comments
	Down Syndrome	Trisomy 18	Open Neural Tube Defects		
First Trimester Screen	Yes	Yes	NO	<p>Dating by ultrasound crown rump length (CRL).</p> <p>Serum sample drawn in first trimester when the CRL is 32-80 mm (10 weeks-13 weeks 6 days).</p> <p>Nuchal translucency (NT) measurement by a certified sonographer** is REQUIRED and must be performed when the CRL is 32-80 mm.</p> <p>NOTE: If this test is performed it is recommended that an NTD Screen be ordered in the second trimester.</p>	<p><u>Detection rates:</u></p> <p>83% Down syndrome 80% Trisomy 18</p> <p><u>False positive rate:</u> 5%</p>
NTD Screen	NO	NO	Yes	<p>Dating by ultrasound.</p> <p>Serum sample drawn in second trimester between 15 weeks-20 weeks 6 days.</p> <p>NOTE: This test is appropriate for those women who have already had testing or screening for Down syndrome or Trisomy 18, either by chorionic villus sampling (CVS) or the First Trimester Screen.</p>	<p><u>Detection rates:</u> 85% neural tube defects</p>

****Sonographer Requirements** - The certified sonographer's name, certification number, and certifying organization must be on file with the laboratory to submit an NT measurement. Please call 319-335-4056 the first time a sonographer is submitting an NT measurement with a test request.