Titer and Vaccination Explanations – PLEASE READ CAREFULLY (it’ll save you time/$$)

Serum titers are blood tests that measure whether you are immune to a given disease(s). More specifically a **quantitative serum titer** is a titer with a numerical value indicating your actual degree of immunity to a disease(s). The clinical sites you may visit or be working at require documented proof of immunity in the form of quantitative titers – simply getting the vaccination is not enough. Therefore, when titers are drawn they must be quantitative titers, and you must provide copies of the official laboratory printouts containing the numerical values for Mumps, Measles, Rubella, Varicella, and Hep B immunity (see examples of a sample lab result on the following page).

**IMPORTANT THINGS TO BE AWARE OF/PITFALLS TO AVOID:**

1. **If you don’t have a record of the previous vaccinations you’ve received, get your titers drawn first.**
   - Why? Measure your immunity level before getting vaccinated to boost it. Your titers might indicate a high immunity to a specific disease, in which case you won’t need to get vaccinated for that disease.

2. **Please get the exact type of titers we have asked you to.**
   - **3 Common Mistakes Students Make:**
     - Quantitative vs. Qualitative titers – quantitative have a numerical value, qualitative simply indicates “immune vs. non-immune” (with no numerical value.) **Be sure to get quantitative titers. If you don’t get quantitative titers, we will ask you to get them redone.**
     - IgG vs. IgM titers – **you need IgG titers; DO NOT get labs for IgM**
     - Hbs AB IgG vs. Hbs AG IgG titers (for Hep B) – **you need Hep B AB (antibody) titers, NOT Hep B AG (antigen) titers.**

3. **If the titer for a specific disease shows that you are not immune, you need to get vaccinated or re-vaccinated (also known as getting a booster).**
   - **Note:** This is where previous vaccination records are helpful. Vaccinations for different diseases have different timelines and numbers of shots needed (ex. Varicella – 2 shot series 4-6 weeks apart vs. Hep B – 3 shot series over 6 months). If a specific titer indicates non-immunity, then your physician (or the Student Health Clinic) can direct you on the next steps for vaccination.

4. **Once vaccinated, titers should not be drawn until 28 days after the vaccination.**
   - Why? If drawn too soon afterwards, the titers may indicate non-immunity or a false positive to immunity as the vaccine will still be in your system. Don’t make the mistake of getting a titer drawn prematurely in order to meet the deadline.

**WHAT TO DO IF ANY OF YOUR QUANTITATIVE TITERS COME BACK NON-IMMUNE:**

1. Consult your physician about your vaccination history – how many immunizations have you already received for the disease(s)?
2. If you haven’t already had it, start the vaccination series for the non-immune disease. If you’re part way through the vaccination series, complete it.
3. If you’ve completed the series, you will need to get additional immunizations for that disease.
4. After completing the series, or getting the booster, **wait 28 days and then get a follow-up titer. DO NOT GET THE TITER TOO EARLY.**

**WHAT TO DO IF YOUR HEP B FOLLOW-UP TITER STILL COMES BACK NON-IMMUNE**

If you have received all the immunizations possible (by completing two full series), you may not convert to immunity. At this point, it is okay. We will need all documentation indicating your non-immunity to the disease, and you will need to complete the Hep B Nonresponder form.

Updated 1/2021
### Rubella Immune Status

**Rubella Virus IGG by EIA**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Result</th>
<th>Units</th>
<th>Ref. Range</th>
<th>Collected Date/Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RUBELLA IMMUNE STATUS</strong></td>
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<tr>
<td>EIA VALUE</td>
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<tr>
<td>SHEET VALUE</td>
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<tr>
<td><strong>EXPLANATION OF TEST RESULTS</strong></td>
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<tr>
<td>&lt; 0.91</td>
<td>NEGATIVE - NO RUBELLA (MEASLES) IGG ANTIBODY DETECTED</td>
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<tr>
<td>0.91 - 1.09</td>
<td>EQUIVOCAL</td>
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<tr>
<td>&gt; 1.10</td>
<td>POSITIVE - RUBELLA IGG ANTIBODY DETECTED</td>
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The presence of Rubella IGG antibody suggests immunization or past or current infection with Rubella Virus.

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### Mumps Virus IGG by EIA Serum

**Mumps Virus IGGAB by EIA**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Result</th>
<th>Units</th>
<th>Ref. Range</th>
<th>Collected Date/Time</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td><strong>MUMPS VIRUS IGGAB BY EIA SERUM</strong></td>
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<td>EIA VALUE</td>
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<td>SHEET VALUE</td>
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<td>&gt; 0.75</td>
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<td><strong>EXPLANATION OF TEST RESULTS</strong></td>
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<tr>
<td>&lt; OR 0.90</td>
<td>NEGATIVE - NO MUMPS IGG ANTIBODY DETECTED</td>
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<tr>
<td>0.91 - 1.09</td>
<td>EQUIVOCAL</td>
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<tr>
<td>&gt; 1.10</td>
<td>POSITIVE - MUMPS IGG ANTIBODY DETECTED</td>
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A positive result indicates that the patient has antibodies to Mumps Virus. The diagnosis must be confirmed with clinical symptoms and/or the patient's history.

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Notice the range is listed by which results are determined.

The patient has immunity to Hepatitis.
Test Name
VARICELLA...ZOSTER VIRUS IGG AB

In Range Out of Range
1.75

E A VALUE EXPLANATION OF RESULTS
< OR 0.90 HES ANTIBODY TO VZV, IT DOES NOT DISTINGUISH BETWEEN ACUTE AND CHRONIC INFECTION. THE CLINICAL DIAGNOSIS MUST BE RECALCULATED IN CONJUNCTION WITH CLINICAL SIGNS AND SYMPTOMS OF THE PATIENT.
0.91 - 1.09 EQUIVOCAL
> OR 1.10 POSITIVE - VZ1 IG1 ANTIBODY DETECTED

THE RESULT OF JGG VZV |NTIT30DY IS CONSISTENT WITH IMMUNITY.

MEASLES IGG AB (RUBEOLA)

EIA value EXP. NAV: IC OF TEST RESULTS
< OR C 0.90 HIEGTVUE - MEASLES |NTIT30DY DETECTED
0.91 - 1.09 EQUIVOCAL
> OR 1.10 POSITIVE - RUBEOLA MEASLES (VZV) ANTIBODY DETECTED

POSITIVE RESULTS SUGGEST RECENT OR PREVIOUS INFECTION WITH MEASLES VIRUS. THE CLINICAL DIAGNOSIS MUST BE RECALCULATED IN CONJUNCTION WITH CLINICAL SIGNS AND SYMPTOMS OF THE PATIENT.