In fall 2020, Grinnell College initiated a weekly COVID-19 testing program for students located in Grinnell and for faculty and staff. The College’s testing protocols are informed by CDC guidelines and in consultation with a University of Iowa team of epidemiologists, infectious disease specialists, and public health modeling experts.

**TESTING PROTOCOL DIAGRAMS**

The College has created action diagrams for healthcare staff based on circumstances and symptoms of the individuals being tested and their test results. The primary scenarios outlined are for:

- symptomatic protocol – for individuals with COVID-19 symptoms,
- asymptomatic protocol – for individuals without COVID-19 symptoms,
- known/suspected COVID-19 exposure protocol – for individuals who have been or may have been exposed to COVID-19.

**KEY TERMS**

**Antibody test:** A test to check for antibodies, which may indicate a past infection with the virus that causes COVID-19. Antibody tests are blood tests and differ from PCR tests, which test for genetic material of the virus.

**Asymptomatic:** Not showing any symptoms (signs of disease or illness). Some people without any symptoms still have and can spread the coronavirus. They are asymptomatic, but contagious.

**Close contact:** Someone who was within 6 feet of an infected person (with or without a mask) for a cumulative total of 15 minutes or more over a 24-hour period starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to test specimen collection) until the time the patient is isolated.

**Isolate:** Isolation is used to keep someone who is infected with COVID-19 apart from other individuals to prevent the transmission of the virus. Separating yourself physically when you are sick to prevent spreading illness keeps someone who is sick, or tested positive for COVID-19 without symptoms, away from others, even in their own home. People who are in isolation should stay home until it is safe for them to be around others.

**Negative:** Negative test results indicate there was no evidence (genetic material) detected in the sample and suggests no active COVID-19 infection.

**PCR test:** Polymerase chain reaction (PCR) testing provides an indication of the presence of the coronavirus by looking directly for its genetic material and can determine if someone is carrying the virus whether or not symptoms of the disease are present. Testing samples are taken through saliva, nasal swabs, or throat swabs.

**Positive:** Positive test results indicate there was evidence (genetic material) detected in the sample and suggests an active COVID-19 infection.

**Quarantine:** Quarantine is used to keep someone who might have been exposed to COVID-19 away from others. Quarantine helps prevent spread of disease that can occur before a person knows they are sick or might be infected with the virus without feeling symptoms. People in quarantine should stay home, separate themselves from others, monitor their health, and follow directions from their state or local health department.

**Symptomatic:** When a person shows signs of illness. People with COVID-19 have had a wide range of symptoms reported — ranging from mild symptoms to severe illness. Symptoms may appear 2-14 days after exposure to the virus. Individuals with COVID-19 may have these symptoms: fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, diarrhea.

**TIMEFRAMES**

**Isolation:** Isolation is continued for a minimum of at least 10 days after symptom onset or positive test. If no symptoms, the patient is isolated until at least 10 days after date of positive test.

**Quarantine:** COVID-19 symptoms may appear 2-14 days after exposure to SARS-CoV-2. Quarantined individuals may or may not become ill, but it can take up to 14 days after exposure to be infected by the virus. If no symptoms develop, the person can be released from quarantine on the 10th day; although they should continue to wear a mask and monitor for symptoms through the 14th day. If a person re-tests negative 5 or more days after their initial test, they can end quarantine on day 7.

However, if a person tests positive during quarantine, the person needs to move to isolation and begin the 10-day isolation count from date of positive test. If a person is in quarantine and a person in their household is in isolation, the quarantine restarts on the 10th day of the housemate’s isolation because the quarantined person may have been exposed on the 10th day.

**3 months:** People who have tested positive for COVID-19 and completed isolation protocol do not need to quarantine/ isolate or get tested again for up to 3 months as long as they do not develop symptoms again. People who develop symptoms again within 3 months of their first bout of COVID-19 will need to be tested again if there is no other cause identified for their symptoms.

**RESOURCES FOR ADDITIONAL INFORMATION**

Grinnell College Testing Program Overview: https://www.grinnell.edu/campus-life/health-wellness/coronavirus/resources/testing

Grinnell College Health and Wellness Services: https://www.grinnell.edu/campus-life/health-wellness/coronavirus/students/health

Symptomatic protocol

PCR weekly testing

Test results

Negative

Quarantine

Repeat PCR test within 24 hours

Negative

Return if no fever for the prior 24 hours

Resume weekly testing

Positive

Isolate for at least 10 days

Positive

Return after at least 10 days isolation and prior 24 hours fever free

No testing 3 months

No testing 3 months
Asymptomatic protocol

**PCR weekly testing**

**Test results**

**Positive**
- Isolate for at least 10 days
- Becomes symptomatic
  - Continue isolation to at least 10 days and return after no fever for the prior 24 hours
  - No testing 3 months
- Remains asymptomatic
  - Continue isolation at least 10 days
  - Antibody test three weeks later
  - Positive
    - No testing 3 months
  - Negative
    - Resume weekly testing

**Negative**
- Resume weekly testing
Known/suspected COVID-19 exposure protocol

Begin 10 day quarantine

Test ASAP

Positive
Move to isolation
Continue in isolation to at least 10 days and return if no fever for the prior 24 hours
No testing for 3 months

Negative
Retest day 5 or after

Positive
Move to isolation

Negative
End quarantine day 7
Further tracing
Resume weekly testing
Return after at least 10 days and prior 24 hours fever free
No testing for 3 months