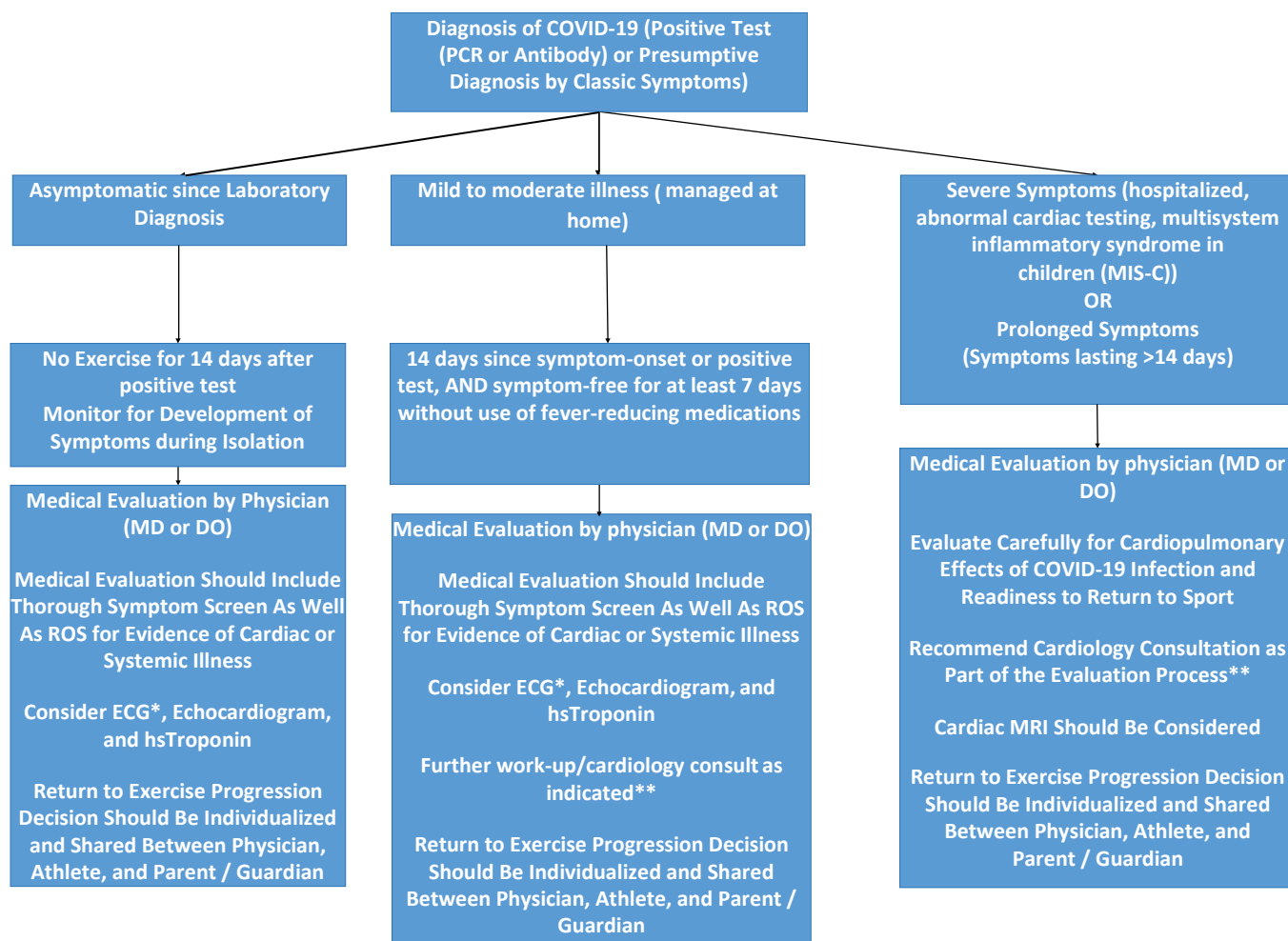


KMA Committee on Sports Medicine COVID-19 Medical Evaluation and Return-to-Activity Guidance for Middle and High School Student-Athletes



- 1) Drezner J.A., et al. (2020). Cardiopulmonary Considerations for High School Student-Athletes During the COVID-19 Pandemic: NFHS-AMSSM Guidance Statement." *Sports Health Available Free Online at <https://journals.sagepub.com/doi/full/10.1177/1941738120941490>. (Updated August 2020)*
- 2) Cardiac Considerations for Student-Athletes during the COVID-19 Pandemic Available Free Online at https://www.amssm.org/Content/pdf_files/COVID19/NCAA-COVID-19-Algorithm-12-AUG-2020.pdf

* ECG changes suggestive of myocarditis include: diffuse ST elevation, ST depression, T wave inversion, pathologic Q waves, and PR depression

**Testing considerations: ECG, hs-Tn, Echo, Cardiac MRI, Holter, Stress test, Chest X-ray, Spirometry, PFTs, D- dimer, and Chest CT as Indicated

**KMA Committee on Sports Medicine:
Return to Activity (RTA) Protocol After COVID-19 Infection**

Any return to play should be preceded by a gradual and progressive return to physical exertion. Athletes should complete the progression below without the development of cardiopulmonary symptoms (chest pain, chest tightness, palpitations, shortness of breath, excessive fatigue, lightheadedness, pre-syncope, or syncope). Monitor the student-athlete closely for the development of any symptoms during this active progression. If any symptoms develop, the athlete should stop exertion immediately and be referred back to the evaluating physician for consideration of additional evaluation, including cardiology consultation, before resuming activity.

- **Step 1: (2-Days Minimum)** Light activity (walking, jogging, stationary bike) for 15 minutes or less at intensity no greater than 70% of maximum heart rate. NO resistance training
- **Step 2: (1-day minimum)** Add simple movement activities (For example, running drills) for 30 minutes or less at intensity no greater than 80% of maximum heart rate
- **Step 3: (1-day minimum)** Progress to more complex training for 45 minutes or less at intensity no greater than 80% maximum heart rate. May add light resistance training.
- **Step 4: (2-days minimum)** Normal training activity for 60 minutes or less at intensity no greater than 80% maximum heart rate
- **Step 5: Return to full activity**

**RTA Protocol adapted from Elliott N, et al. Infographic. British Journal of Sports Medicine, 2020.*

Disclaimer: This document is provided for physicians who may evaluate and treat student-athletes diagnosed with COVID-19 infection. The information contained herein is based on the compilation and summary of expert recommendations of national and international sports medicine organizations.

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KHSAA COVID-19 Return to Play Form

If an athlete has tested positive or was presumed positive for COVID-19 based on symptoms, he/she should rest from physical activity for at least 14 days beginning the day following the onset of symptoms or positive test results. He/she must then be cleared for progression back to activity by an approved health care provider (MD/DO). Any return to activity should follow the recommended Return to Play (RTP) Progression described below and illustrated on the back of this form.

Athlete's Name: _____ DOB: _____ Date of Positive Test: _____

THIS RETURN TO PLAY IS BASED ON TODAY'S EVALUATION

Date of Evaluation: _____

Criteria to return to be completed by MD or DO. (Please check below as applies)

- 14 days have passed since the onset of symptoms or a positive test (starting the day following the onset of symptoms or the receipt of the results of positive test)
- All symptoms (cough, shortness of breath, fever ($\geq 100.4F$), etc.) have resolved for at least 7 days without use of fever reducing medication AND
- The athlete was not hospitalized due to COVID-19 infection.
- PLUS Cardiac screen negative for myocarditis/myocardial ischemia (All answers below must be NO)

Chest pain/tightness with exercise	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Unexplained Syncope/near syncope	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Unexplained/excessive dyspnea/fatigue w/exertion	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
New palpitations	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Heart murmur on exam	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>

NOTE: If any cardiac screening question is positive or if athlete had greater than mild symptoms during the illness, consider further workup as indicated. Additional workup may include ECG, Echocardiogram, High Sensitivity Troponin, Cardiac MRI, Cardiology Consultation, CXR, Spirometry, PFTs, Chest CT, etc.

- The athlete HAS satisfied the above criteria and IS cleared to start the return to activity procedures (RTP).
- The athlete HAS NOT satisfied the above criteria and IS NOT cleared to return to activity

Medical Office Information (Please Print/Stamp):

Evaluator's Name: _____ MD or DO

Evaluator's Address: _____

Office Phone: _____

Evaluator's Signature: _____

Return to Play (RTP) Procedures After COVID-19 Infection

Athletes must complete the progression below without development of chest pain, chest tightness, palpitations, lightheadedness, pre-syncope or syncope. If these symptoms develop, patient should be referred back to the evaluating provider who signed the form. This progression cannot begin prior to the 14th day following the onset of symptoms or the receipt of the results of a positive test.

- **Stage 1: (2 Days Minimum)** Light activity (walking, jogging, stationary bike) for 15 minutes or less at intensity no greater than 70% of maximum heart rate. NO resistance training.
- **Stage 2: (1 Day Minimum)** Add simple movement activities (For example, running drills) for 30 minutes or less at intensity no greater than 80% of maximum heart rate
- **Stage 3: (1 Day Minimum)** Progress to more complex training for 45 minutes or less at intensity no greater than 80% maximum heart rate. May add light resistance training.
- **Stage 4: (2 Days Minimum)** Normal training activity for 60 minutes or less at intensity no greater than 80% maximum heart rate
- **Stage 5: Return to full activity**

Cleared for Full Participation): _____

ISOLATION PARAMETERS AND EXAMPLE (STUDENT-ATHLETE WITH A POSITIVE TEST)

SYMPTOMS

- Per CDC, the primary symptoms of COVID-19 are- Fever (above 100.4) or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, the new loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, diarrhea, trouble breathing, persistent pain or pressure in the chest, new confusion, inability to wake or stay awake and bluish lips or face.

NOTE: Any individual showing signs of trouble breathing, persistent pain or pressure in the chest, new confusion, inability to wake or stay awake and bluish lips or face should seek emergency medical attention immediately!

DAY 1

- For a student-athlete testing positive for COVID-19, Day 1 is the first day of showing symptoms if such student-athlete shows symptoms as listed above.
- For a student-athlete not showing any of the above symptoms but testing positive for the COVID-19, the date of receipt of the positive test results is Day 1.

ISOLATION PERIOD (This period may not be shortened by any amount of testing (PCR or other), even if such test produces a negative result)

- The CDC standard isolation period is ten (10) days starting the day after Day 1.
- Isolation for the student using the CDC parameters would be at minimum Day 2 through Day 11.
- Per CDC, for most persons with COVID-19 illness, isolation and precautions can generally be discontinued ten (10) days after symptom onset and resolution of fever for at least 48 hours (without the use of fever-reducing medications) and with improvement of other symptoms.
- This ten (10) day period would then be the minimum isolation period, and no negative test during the interim can shorten this period.
- Per CDC, a limited number of persons with severe illness may produce replication-competent virus beyond ten (10) days that may warrant extending duration of isolation and precautions for up to 20 days after symptom onset; consider a consultation with infection control experts.

INTERIM PERIOD

- Days 12 to Day 15 represent an interim period between the ISOLATION period and the permitted beginning of the Return to Play protocol.
- The interim period should be extended in the event that there has not been resolution of fever for at least 48 hours (without the use of fever-reducing medications) and there has not been improvement of other symptoms
- Practitioners may choose to use this period for additional analysis or diagnostic testing or supplemental rest for the student-athlete; however, the Return to Play protocol may not begin during this period.

STEP-WISE RETURN TO PLAY (This period may not be shortened, but any and all segments may be extended by order of the attending physician)

- If the isolation and interim periods have been satisfied, and absent any continued symptoms as listed above, and absent a doctor's order for a more extended period, the student-athlete could begin the stepwise return to play protocol on Day 16.
- The return to play protocol is at minimum six days per the KMA recommendation as detailed at <https://bit.ly/3j6k3Jw> and with the authorization of a physician (MD or DO)
 - Step 1: (2-Days Minimum, days 16 and 17 at minimum) Light activity (walking, jogging, stationary bike) for 15 minutes or less at intensity no greater than 70% of maximum heart rate. NO resistance training
 - Step 2: (1-day minimum, day 18 at minimum) Add simple movement activities (For example, running drills) for 30 minutes or less at intensity no greater than 80% of maximum heart rate
 - Step 3: (1-day minimum, day 19 at minimum) Progress to more complex training for 45 minutes or less at intensity no greater than 80% maximum heart rate. May add light resistance training.
 - Step 4: (2-days minimum, days 20 and 21 at minimum) Normal training activity for 60 minutes or less at intensity no greater than 80% maximum heart rate.
 - Step 5: Return to full activity (day 22, including Day 1 with physician authorization (MD or DO).

References:

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html>

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html>

https://education.ky.gov/comm/Documents/Safety%20Expectations_FINAL%20DOC.pdf

<https://khsaa.org/resources/Covid19/CovidResumptionofSports/kma-covid-rtp-algorithm.pdf>

<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>