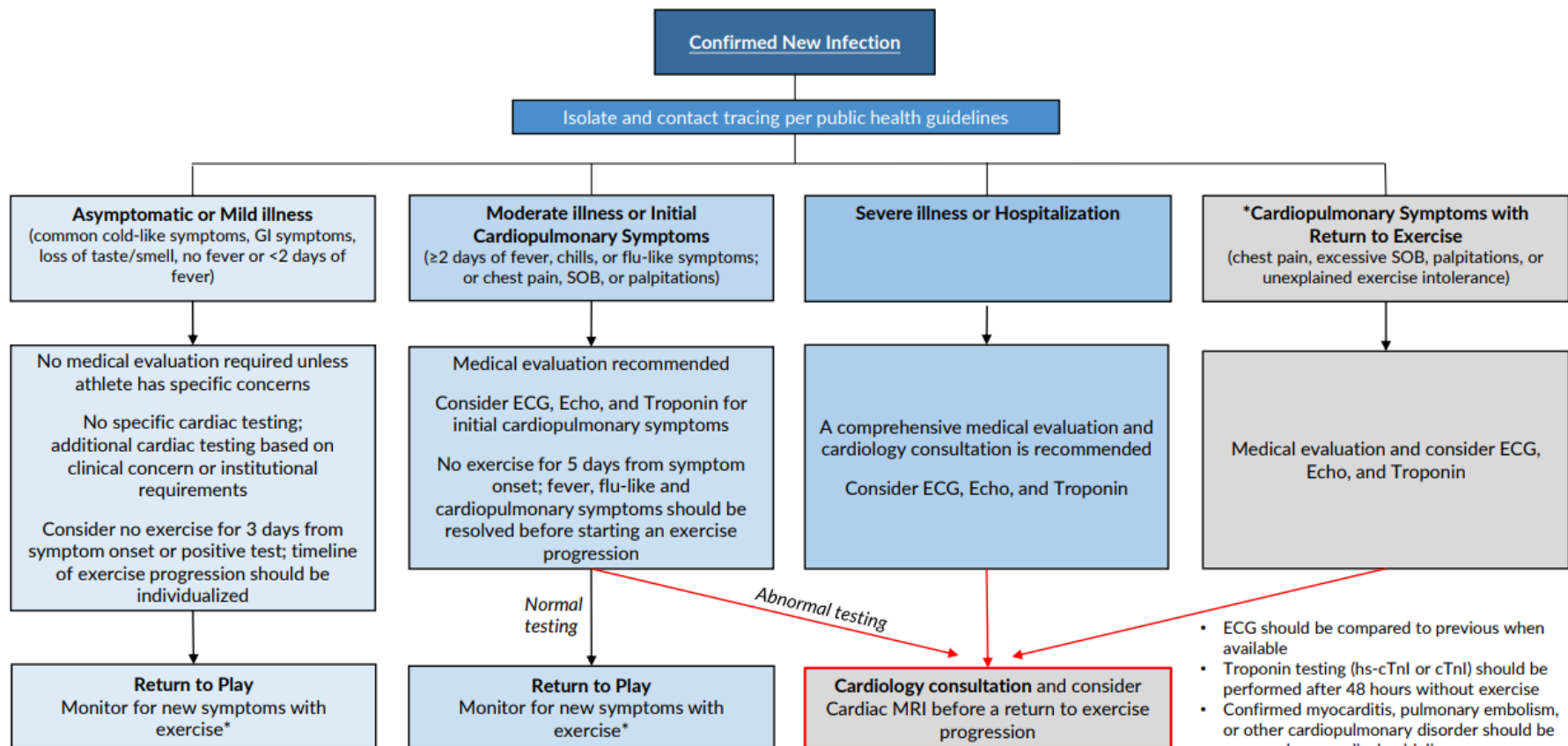


COVID-19 GRADUATED RETURN TO PLAY

This guidance is for student-athletes who are asymptomatic or have mild symptoms as outlined in the algorithm below. All treatment plans will be individualized based on symptom severity and sport. Stage I is 3 days of rest following symptom onset or a positive test. Stages II-V are at least one day each and outline a gradual ramp up of activity separated by 24 hours of rest. Please note that each stage may be extended on a case by case basis which would lengthen the return to play protocol.

Cardiac Considerations for College Student-Athletes during the COVID-19 Pandemic

*Recommendations for cardiac testing are based on expert consensus and informed by current evidence



Stages of return to play after COVID-19 infection

Stage	Activity level	Objectives	Percent of maximum HR permitted	Duration of exercise session	Exercise intensity and examples
Stage I	Initial rest	Allow time for recovery	N/A	N/A	Activities of daily living.
Stage II	Light activity	Gradual increase in heart rate	<70%	<15 minutes	Begin light exercise (eg, walking, light jogging, light stationary bicycle). No resistance training.
Stage III	Moderate activity	Increase in exercise frequency and duration	<80%	<45 minutes	More challenging aerobic activities (eg, 2- to 3-km run at 12 to 15 minutes/mile [7 to 9 minutes/km] or at easy pace for elite runners; stationary bicycle at 50 to 125 watts; other activity at RPE 9 to 12). Begin resistance training (eg, bodyweight exercises that can be performed for 15 to 20 repetitions without difficulty; weight training at 50% of 1RM or less).
Stage IV	Advanced activity	Increase in exercise intensity; restoration of functional skills	<80%	<60 minutes	More intense aerobic activities (eg, 3- to 5-km run at 10 to 15 minutes/mile [6 to 9 minutes/km] or at moderate but not fast pace for elite runners; stationary bicycle at >150 watts; other activity at RPE 11 to 14). More intense resistance training (eg, full bodyweight exercises; weight training at 70% of 1RM or less).
Stage V	Normal training	Gradual resumption of standard fitness routine	N/A	N/A	Normal training*. Re-introduction of sprints, interval training, and agility (multi-directional) training*. Full resistance training*.

The table provides a general scheme for progressing to full play following infection with COVID-19. The duration of each stage will vary widely depending upon a range of patient factors, including severity of infection, comorbidities, age, baseline fitness, and goals. Clinicians must monitor patients appropriately and modify activity based on patient response and any symptoms or signs that may develop.

HR: heart rate; N/A: not applicable; 1RM: one repetition maximum; RPE: rate of perceived exertion.

* Training volume and intensity should be increased **gradually**. A good rule of thumb is that increases should not exceed 10% each week. For aerobic activities, increases in volume should precede increases in intensity.

References:

1. Elliott N, Martin R, Heron N, et al. Infographic. Graduated return to play guidance following COVID-19 infection. *Br J Sports Med* 2020; 54:1174.
2. Metz J, McElheny K, Robinson JN, et al. Considerations for Return to Exercise Following Mild-to-Moderate COVID-19 in the Recreational Athlete. *HSS J* 2020; 16(Suppl 1):1.
3. Jewson J, McNamara A, Fitzpatrick J. Life after COVID-19: The importance of a safe return to physical activity. *Aust J Gen Pract* 2020; 49.
4. Coronavirus Disease 2019: Readiness Guide Version 2. Navy Bureau of Medicine and Surgery 2021.

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