

**TRAINING
GUIDELINES
FOR SAFE
REINTEGRATION
INTO FENCING**

**AMONG ONGOING COVID-19
RESTRICTIONS & RISKS**



**USA
FENCING**

USA Fencing, in collaboration with USA Gymnastics, has developed the following information to help athletes and coaches safely return to fencing training following restrictions due to the COVID-19 pandemic.

The USA Fencing Guidelines regarding infectious disease principles involving COVID-19 and opening fencing facilities can be found at www.usafencing.org/coronavirus.

Please note that the guidelines contained within this document apply to training and practice taking place when clubs and related facilities are permitted to operate or reopen by local and state laws, regulations, executive orders and other legal mandates regarding COVID-19.

Prior to the initiation of key considerations in your return into fencing training, you should consult your personal physician or sports medicine provider to determine the return to fencing process that is best for you. This document does not address infectious disease involving COVID-19 and the opening of fencing facilities. Please refer to the USA Fencing COVID-19 resources page for further information regarding COVID-19.

This document is intended for all competitive ages as a guide to return to sport following the COVID-19 pandemic. Please seek out your medical provider to see if these recommendations are right for you.

The guidance included below provides sports science research that will assist in minimizing injury after a reduction in training; the cessation in training should necessitate a gradual return to activity. Fitness and preparation while the fencing gym was closed was different for each athlete, which necessitates an individualized approach to a return to fencing training. The enclosed questionnaire will guide athletes and coaches toward an understanding of where to start with each athlete's training plan. The included training plan template will help determine how to safely progress each athlete through an eight-week plan of gradual training re-introduction.

For beginner athletes, the plan can be modified for a gradual return to competition that may be 4-6 weeks. Intensity and volume recommendations along with goals are provided for each week. Additionally, information on the importance of addressing mental health as athletes return to fencing facilities, is provided by Dr. Karen Cogan, PhD. Lastly, information is included on nutritional tips and common overuse injuries as athletes return to the gym. Despite best efforts, injuries may still occur, especially if training is progressed too quickly. Early recognition is vital for a safe return. Questions about this position statement, should be directed to: Jeremy Summers, DC, DACBSP, LAc, AT – Director of Sports Medicine via email at j.summers@usafencing.org.

THIS DOCUMENT CONTAINS:

- Information outlining the importance of why a gradual return to fencing is recommended
- How coaches can manage their athletes' return to fencing
- Mental and physical aspects associated with the return to fencing
- Baseline questionnaire to guide individuals back safely
- Eight-week training template

INTRODUCTION

WHY IS A RETURN TO FENCING TRAINING STRATEGY NECESSARY?

- Fencing is a low-risk sport for time-loss injuries (injuries that take athletes out of competition or training). However, fencing demands for reentry into sport should be well thought out to return to sport safely.
- Fencing is a sport that requires a high level of timing and body awareness, along with the ability to quickly change direction.
- Over time, fencers can adapt to this high volume of sport-specific training while allowing for adequate recovery and healing. However, for most fencers, there is usually not an off-season.
- It is well recognized that body composition can change in adolescent and adult athletes following prolonged restrictions from training.
- Prolonged time away from sport-specific training, as short as 2-4 weeks, can create a state of “deconditioning,” with fitness and strength losses.
- After this prolonged absence from training, there will be a significant amount of anticipation and excitement to resume fencing training – including from fencers, coaches and family members.
- This highly anticipated return to training is prone to a re-entry process that is too quick. An accelerated return to activity puts the fencer at risk for injury.
- In the context of normal training cycles, a systematic training plan is required to prepare an athlete for the demands of their sport.
- An unhealthy approach to integration of training loads will cause weakening of the tissue and can lead to injury. Following an extended time away from training, a healthy strategy for the reintroduction of training loads is even more necessary to avoid injury.

RETURN TO FENCING

The information in this document is meant to provide general strategies on how to approach a return to fencing following the long-term restrictions resulting from the COVID-19 pandemic. The information in this document is only meant to serve as guidelines and must be tailored to each fencer. These guidelines come with some inherent limitations:

Fencers and their training efforts during stay-at-home orders differ. Take into consideration the following:

- Each fencer will return to training having variable levels of preparation.
- Each fencer will return to training having maintained variable levels of fencing-specific activities and general fitness.
- Each fencer will have begun his or her time away from fencing-specific training with variable levels of health.
- Each fencer, during his or her time away, will have had variable opportunities for recovery and access to care for pre-existing injuries.
- In the context of the pandemic, it is important to keep in mind each fencer’s medical history and subsequent relative health risk upon return to social and sport activities.
- The timing and specifics of each fencer’s physical reintegration and training plan will be partially dependent on local, regional, and national public health guidelines.
- Skills that were previously routine may be too much load for a “deconditioned” fencer. Gradual increase in load and volume are meant to provide a safe return to sport.

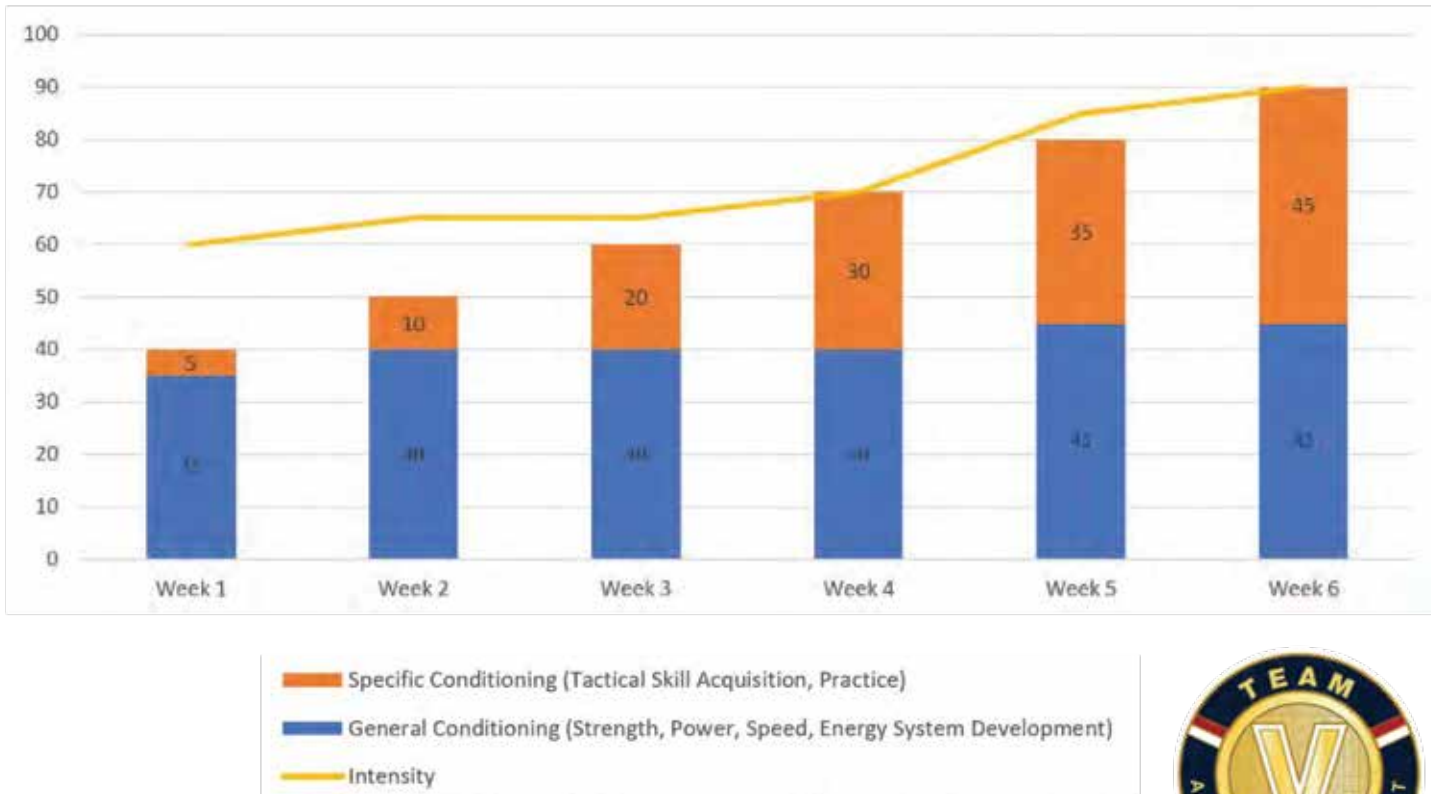


FOR FENCERS: STRENGTH, FITNESS, LOAD, VOLUME AND INTENSITY

Rhythm = Focus

1. Two-week reset – basic strength and conditioning, sports-specific if possible, but with a mild load and intensity.
2. Start a six-week ramp-up based upon 10% increment model.
3. Assume athlete is at only 40% capacity. Training can be split into general and specific conditioning.
4. Overarching intensity that starts low around 60% with small increases each week.
5. The small increases in volume/intensity improve the ability for progress while reducing the potential for injury.

SIX-WEEK RAMP-UP: 10% WEEKLY INCREASE IN INTENSITY



REVERSE ENGINEER THE DECONDITIONING WITH SUCCINCT TRAINING

Courtesy of Mason Walters, USOPC Strength and Conditioning Coach



PROPOSED FENCING REINTEGRATION TEMPLATE

This reintegration to fencing template describes a general progression that guides a return to fencing-specific training. A specific template is listed on page 6. There is no one template that can account for individuality and weapon discipline. However, resources are provided to support this framework and were used to guide the production of this template.

- Pre-return athlete questionnaire (Page 8).
- Assumes a fencer has maintained approximately 30-40% of his or her normal levels of fitness.
- Increase straining loads by 10% each week to allow for appropriate and safe adaptation.
- Proposed eight-week timeline for reintegration.
- Monitor weekly and assess how each athlete is progressing, in an individualized manner.
- Similarities in weapons/discipline vary slightly. All athletes should avoid a quick return to competitive bouting, start-stop/change of direction, and deep powerful lunging. Saber fencers, in particular, should avoid powerful ballistic lunging too early.
- At the end of the two weeks, reevaluate the initial success of the progressive return.
- Throughout the progression, coaches should regularly check in with fencers to assess physical and mental adaptation to activity and to adjust accordingly. This reevaluation plan should occur every two weeks.

- Athletes with prior or chronic injuries before the pandemic are encouraged to seek access to rehabilitation management plans to reduce risk of exacerbation or re-injury.
- An environment of early reporting of pain and/or injury should be highly encouraged.
- Reintegration of fencing bouting and overall timeline will vary for each individual.

TEMPLATE WILL ADDRESS THE FOLLOWING:

- Athlete assessment
- Warm-up
- Cardiovascular fitness
- Strengthening and injury prevention programs
- Fencing bout reintegration
- Hours per day and days per week



POST-COVID-19 REINTEGRATION TEMPLATE

	GOAL	ACTIVITY
WEEK 1	<p>INTEGRATION OF FITNESS AND FENCING-SPECIFIC ADAPTATION</p>	<p>OVERALL:</p> <ul style="list-style-type: none"> Assess individual athletes' current level of fitness Assess how athletes are doing mentally with return to the gym Light warm-up activities with dynamic stretching Focus on fun Return to footwork and drills <p>Strengthening: 30% Overall Volume: 30%</p> <ul style="list-style-type: none"> 3-4 practice sessions for 1 hour (Total: 3-4 hours/week)
WEEK 2	<p>INTEGRATION OF FITNESS AND FENCING- SPECIFIC ADAPTATIONS</p> <ul style="list-style-type: none"> 10% INCREASE OF INTENSITY FROM EACH SUBSEQUENT WEEK 	<p>Monitor body soreness and adjust load accordingly Check in with your athlete both physically and mentally, reassess the success of the progression, and adjust accordingly.</p> <p>OVERALL:</p> <ul style="list-style-type: none"> Technique, drills, footwork Lessons (light to moderate duration and intensity focusing on technique and distance) Continue to limit level of ballistic change of direction and powerful lunging efforts Increase warm-up and amount of active stretching gradually <p>Strengthening: 40% Overall Volume: 40%</p> <ul style="list-style-type: none"> 4 practice sessions for 1-2 hours (Total: 4-8 hours/week) <div style="border: 1px solid red; padding: 5px; margin-top: 10px;"> <p>REMINDER THIS TEMPLATE ASSUMES:</p> <ul style="list-style-type: none"> Fencer is returning with 30-40% of normal fitness Fencer normally trains 10-12 hours per week </div>
WEEK 3	<p>SITUATION BOUTING REDEVELOPMENT</p> <p>CONTINUED STRENGTHENING AND FITNESS RETURN</p>	<p>OVERALL:</p> <ul style="list-style-type: none"> Check in with athletes and how their bodies and minds are feeling. Adjust accordingly. Progress intensity and duration of warm-up activities. Footwork endurance with reduced impact/lunging Continue to build fitness/endurance and injury prevention programs (hamstring/core) Continue to build fencing-specific timing with increased exposure during lessons, drills, and situational bouts <p>Strengthening: 50% Overall Volume: 50%</p> <ul style="list-style-type: none"> 4 practice sessions for 2 hours (Total: 8 hours/week)
WEEK 4	<p>FURTHER SKILL REDEVELOPMENT</p> <p>INTEGRATION OF OPEN BOUTING</p>	<p>OVERALL:</p> <ul style="list-style-type: none"> Check in with your athlete, both physically and mentally, reassess the success of the progression and adjust accordingly. Continue to build stamina and endurance Start integration of open bouts (light to moderate load volume) <p>Strengthening: 60% Overall Volume: 60%</p> <ul style="list-style-type: none"> 4 practice sessions for 2-3 hours (Total: 8-12 hours/week)

POST-COVID-19 REINTEGRATION TEMPLATE (CONT.)

	GOAL	ACTIVITY
WEEK 5	FURTHER INTEGRATION OF BOUTING AND LESSON LOAD	<p>OVERALL:</p> <ul style="list-style-type: none">• Check in with your athlete, both physically and mentally. Adjust accordingly.• Continue to build endurance, strength, and stamina• Continue to increase volume moderate for bouting and/or lessons <p>Strengthening: 70% Overall Volume: 70%</p> <ul style="list-style-type: none">• 4 practice sessions for 2-3 hours (Total: 8-12 hours/week)
WEEK 6	FURTHER BOUTING LOAD INTEGRATION INTRODUCE MODERATE/HIGH INTENSITY BOUTING WITH LOW VOLUME	<p>OVERALL:</p> <ul style="list-style-type: none">• Check in with your athlete, both physically and mentally. Adjust accordingly.• Continue open bouting/lesson moderate intensity and volume• Introduction of moderate/high intensity bouting with small volume <p>Strengthening: 80% Overall Volume: 80%</p> <ul style="list-style-type: none">• 4 practice sessions for 3 hours (Total: 12 hours/week)
WEEK 7	FURTHER BOUTING LOAD INTEGRATION	<p>OVERALL:</p> <ul style="list-style-type: none">• Check in with your athlete both physically and mentally. Adjust accordingly.• Continue to build endurance and volume <p>Strengthening: 90% Overall Volume: 90%</p> <ul style="list-style-type: none">• 4 practice sessions for 3 hours (Total: 12 hours/week)
WEEK 8	RETURN TO FULL TRAINING	<p>OVERALL:</p> <ul style="list-style-type: none">• Check in with your athlete both physically and mentally. Adjust accordingly.• Final integration of full routine training• 100% volume of fencing load <p>Strengthening: 100% Overall Volume: 100%</p> <ul style="list-style-type: none">• 5 practice sessions for 2.5 - 3 hours (Total: 12.5 - 15 hours/week)



PRE-RETURN FITNESS QUESTIONNAIRE

The questionnaire Pre-Return Fitness Questionnaire should be used to help assess any athlete's level of fitness upon return to the club. Athletes who were unable to maintain basic levels of fitness during closures should be started at a lower level and progressed more slowly than athletes who were able to spend a substantial amount of time on fitness activities.

ATHLETE NAME: _____

1. Have you tested positive for COVID-19?

Yes No

If YES, seek out cardiovascular screening prior to returning to sport or exercise

For more information visit British journal of Sports Medicine. Information. Graduated return to play guidance following COVID-19 infection. - <http://dx.doi.org/10.1136/bjsports-2020-102637>

2. Did you have any fencing equipment in your home, and did you do any type of fencing-specific training at home?

Yes No N/A

If yes, approximately how many days per week? _____

Please list details. _____

3. Did you maintain cardiovascular fitness (ie. run, bike, swim, etc.)?

Yes No

If yes, approximately how many days per week? _____

Please list details. _____

4. Did you maintain a log of your workouts?

Yes No

If yes, consider providing a copy of your daily log to your coach.

5. Did you maintain a strengthening program?

Yes No

If yes, approximately how many days per week? _____

Please list details. _____

6. Did you play/participate in any activity training besides fencing (i.e., another sport, virtual class, dance training) during your time away from the gym?

Yes No

Please list details. _____

7. Do you have a rehabilitation program for a pre-existing injury or do you have a new injury?

Yes No

Please list details. _____

8. On a scale from 0-10, how fit do you feel at this point, compared to when you had to stop doing fencing?

(10 = As fit as when I stopped, 0 = I have maintained no fitness)

0 1 2 3 4 5

6 7 8 9 10

9. Are there any concerns in current health and fitness status prior to return to fencing training?

Yes No

Please list details. _____

10. How can your coach help ease your concerns returning to training?

11. Please list any other concerns you may have about returning to training.

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Thank you!

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QUESTIONS?

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