

# CAROLINA

## Sports Concussion Clinic

### Exercise Progression Instructions

The following protocol is used to *gradually* return you to activity.  
After **ALL** concussion symptoms (including headache) have resolved,  
you can begin the protocol.

1. Determine your RESTING HEART RATE (HR). The average is 60-80 beats per minute. The radial pulse is located just below the thumb. The carotid pulse is located the side of the neck. Use two fingers when checking your pulse (not your thumb). Press lightly until you feel the pulse. Use a watch or clock and count the number of beats in one minute.



2. Determine your MAX HEART RATE by subtracting your age from 220.
3. Determine your TARGET HEART RATE. This is the average range of heart rate reached during exercise which enables your heart & lungs to receive the most benefit from exercise. Use the following formula:  
$$\text{Target HR} = [(\text{Max HR} - \text{Resting HR}) \times \text{target \%}] + \text{Resting HR}$$

Example: a 15 year old with resting HR of 60, exercising at 50% exertion  
$$\text{Target HR} = [(205 - 60) \times 50\%] + 60 = 132 \text{ beats per minute}$$
4. Pay careful attention to your symptoms, your thinking, and your concentration skills at each stage of activity.
5. A 24 hour rest period should be taken before progressing to the next stage.
6. **Move to the next stage of activity only if you do not experience any symptoms when completing the current exercise stage.**
7. If your symptoms return, immediately discontinue activity and rest for 24 hours. If symptoms do not resolve or significantly worsen, consult your physician and/or athletic trainer.

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Name of Athlete: \_\_\_\_\_ Date Symptom-free: \_\_\_\_\_

### Wrestling Specific Exercise Progression

	EXERCISE	Day/Date	COMPLETED / COMMENTS	
<b>Stage 1</b>	Goal is to reach 30-40% of maximum heart rate Walking at 2.5 mph or Riding a stationary bike for 20-30 minutes.		YES  NO	Supervisor's initials _____
<b>Stage 2</b>	Goal is to reach 40-60% of maximum heart rate Jogging (medium pace) for 20-30 minutes Sit-ups x 25, Push-ups x 20, Lunge walks x 20		YES  NO	Supervisor's initials _____
<b>Stage 3</b>	Goal is to reach 60-80% of maximum heart rate  Running (fast pace) for 20-30 minutes, Sit-ups x 50, Push-ups x 30, Lunge walks x 30 practice individual drills for 15 minutes. Can include shuffling, sprawls, crawls, high knees, knee hops, lateral hops, front/back hops. No grappling, take downs, or touching another player.		YES  NO	Supervisor's initials _____
<b>Stage 4</b>	Goal is to reach 80% of maximum heart rate  <b>Participate in Non-Contact practice drills:</b> Warm up (jogging/stretching 10-20 minutes) and practice team drills for 45-60 minutes total. Can include drills from Stage 3, weightlifting, balance drills. No grappling, take downs, or touching another player. Burpees with a jump x 10.		YES  NO	Supervisor's initials _____
	<b>RETURN TO OFFICE FOR FINAL VISIT</b>			
<b>Stage 5</b>	Goal is to reach full exertion. Participate in full-contact practice, can resume all activity.		YES  NO	Supervisor's initials _____
<b>Stage 6</b>	Goal is to reach & maintain full exertion. Resume full participation in competition		YES  NO	Supervisor's initials _____

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