

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: _____

Martial Arts Specific Exercise Progression

	EXERCISE	Day/Date	COMPLETED / COMMENTS	
Stage 1	<i>Goal is to reach 30-40% of maximum heart rate</i> Walking at 2.5 mph or Riding a stationary bike for 20-30 minutes.		YES NO	 <i>Supervisor's initials</i> _____
Stage 2	<i>Goal is to reach 40-60% of maximum heart rate</i> Jogging (medium pace) for 20-30 minutes Sit-ups x 25, Push-ups x 20, Lunge walks x 20		YES NO	 <i>Supervisor's initials</i> _____
Stage 3	<i>Goal is to reach 60-80% of maximum heart rate</i> Running (fast pace) for 20-30 minutes, Sit-ups x 50, Push-ups x 30, Lunge walks x 30. Practice skills/techniques on own for 15 minutes.		YES NO	 <i>Supervisor's initials</i> _____
Stage 4	<i>Goal is to reach 80% of maximum heart rate</i> Participate in a Non-Contact practice Warm up with team/classmates (jogging/stretching 10-20 minutes), practice for 45-60 minutes total (not touching another person)		YES NO	 <i>Supervisor's initials</i> _____
	<i>RETURN TO OFFICE FOR FINAL VISIT</i>			
Stage 5	<i>Goal is to reach full exertion.</i> Participate in full-contact practice.		YES NO	 <i>Supervisor's initials</i> _____
Stage 6	<i>Goal is to reach & maintain full exertion.</i> Resume full participation in competition		YES NO	 <i>Supervisor's initials</i> _____

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