**Concussion Protocol Harmonization Project:**

**Sport-Specific Return-to-Sport Strategy Adaptation Tool**

**Purpose**

This tool will help ensure your Return-to-Sport Strategy is tailored to include sport-specific activities that help athletes return to your sport after a concussion.

**How to use this tool**

The tables that follow indicate the stages of a graduated Return-to-Sport Strategy.

To adapt the generic strategy to your sport, the “Activity details” column should describe specific activities athletes can progress through to return to your sport after a concussion. Use the questions and comments listed in the “Sport-specific considerations” column to insert tailored activities for your athletes into the “Activity details” column.

 **Once your sport-specific strategy is complete, insert it in your concussion protocol.**

**Table 1. Return-to-Sport Strategy**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Step** | **Activity** | **Activity details** | **Goal of each step** | **Sport-specific considerations** |
| **1** | Activities of daily living and relative rest (first 24 to 48 hours) | * Typical activities at home (e.g. preparing meals, social interactions, light walking) that do not result in more than mild and brief worsening of symptoms
* Minimize screen time
 | Gradual reintroduction of typical activities. | N/A |
| After a maximum of 24 to 48 hours after injury, progress to step 2. |  |
| **2** | 2A: Light effort aerobic exercise | * Start with light aerobic exercise, such as stationary cycling and walking at a slow to medium pace
* May begin light resistance training that does not result in more than mild and brief worsening of symptoms
* Exercise up to approximately 55% of maximum heart rate
* Take breaks and modify activities as needed
 | Increase heart rate. | What is the type of aerobic exercise most relevant to your sport? * Stationary bike?
* Treadmill walking/ running?
 |
| 2B: Moderate effort aerobic exercise | * Gradually increase tolerance and intensity of aerobic activities, such as stationary cycling and walking at a brisk pace
* Exercise up to approximately 70% of maximum heart rate
* Take breaks and modify activities as needed
 | Activities should build on step 2A, but at a higher level. |
| If the athlete can tolerate moderate aerobic exercise, progress to step 3. |  |
| **3** | Individual sport-specific activities, without risk of inadvertent head impact | * Add sport-specific activities (e.g., running, changing direction, individual drills)
* Perform activities individually and under supervision from a teacher, parent/caregiver or coach
* Progress to where the athlete is free of concussion-related symptoms, even when exercising
 | Increase the intensity of aerobic activities and introduce low-risk sport-specific movements  | What types of sport-specific skills are required for your sport? * Ball skills, stick handling, racquet skills, cutting, pivoting, spinning, twisting, spotting, etc.

Activities should allow training in environments without risk of inadvertent head impact |
| **Medical clearance**If the athlete has completed return to school (if applicable) and has been medically cleared, progress to step 4. |  |
| **4** | Non-contact training drills and activities | * Progress to exercises with no body contact at high intensity, including more challenging drills and activities (e.g., passing drills, multi-athlete training and practices)
 | Resume usual intensity of exercise, co-ordination and activity-related cognitive skills. | Are there “battle drills” or other dynamic activities that can be trained for prior to engaging in full practice? |
| If the athlete can tolerate usual intensity of activities with no return of symptoms, progress to step 5. |  |
| **5** | Return to all non-competitive activities, full-contact practice and physical education activities | * Progress to higher-risk activities including typical training activities, full-contact sport practices and physical education class activities
* Do not participate in competitive gameplay
 | Return to activities that have a risk of falling or body contact, restore confidence and assess functional skills by coaching staff | Are there “battle drills” or other dynamic activities that can be trained prior to engaging in full game play?  |
| If the athlete can tolerate non-competitive, high-risk activities, progress to step 6. |  |
| **6** | Return to sport | Unrestricted sport and physical activity  |  | N/A |
| **Return to sport is complete.** |  |

Table adapted from: Patricios, Schneider et al., 2023; Reed, Zemek et al., 2023

**[NAME OF SPORT]-Specific Return-to-Sport Strategy**

|  |  |  |  |
| --- | --- | --- | --- |
| **Step** | **Activity** | **Activity details** | **Goal of each step** |
| **1** | Activities of daily living and relative rest (first 24 to 48 hours) | * Typical activities at home (e.g. preparing meals, social interactions, light walking) that do not result in more than mild and brief worsening of symptoms
* Minimize screen time
 | Gradual reintroduction of typical activities. |
| After a maximum of 24 to 48 hours after injury, progress to step 2. |
| **2** | 2A: Light effort aerobic exercise | **[INSERT SPORT-SPECIFIC ACTIVITIES HERE]** * May begin light resistance training that does not result in more than mild and brief worsening of symptoms
* Exercise up to approximately 55% of maximum heart rate
* Take breaks and modify activities as needed
 | Increase heart rate. |
| 2B: Moderate effort aerobic exercise | **[INSERT SPORT-SPECIFIC ACTIVITIES HERE]** * Exercise up to approximately 70% of maximum heart rate
* Take breaks and modify activities as needed
 |
| If the athlete can tolerate moderate aerobic exercise, progress to step 3. |
| **3** | Individual sport-specific activities, without risk of inadvertent head impact | **[INSERT SPORT-SPECIFIC ACTIVITIES HERE]** * Perform activities individually and under supervision from a teacher, parent/caregiver or coach
* Progress to where the athlete is free of concussion-related symptoms, even when exercising
 | Increase the intensity of aerobic activities and introduce low-risk sport-specific movements  |
| **Medical clearance****If the athlete has completed return to school (if applicable) and has been medically cleared, progress to step 4.** |
| **4** | Non-contact training drills and activities | **[INSERT SPORT-SPECIFIC ACTIVITIES HERE]**  | Resume usual intensity of exercise, co-ordination and activity-related cognitive skills. |
| If the athlete can tolerate usual intensity of activities with no return of symptoms, progress to step 5. |
| **5** | Return to all non-competitive activities, full-contact practice and physical education activities | **[INSERT SPORT-SPECIFIC ACTIVITIES HERE]** * Do not participate in competitive gameplay
 | Return to activities that have a risk of falling or body contact, restore confidence and assess functional skills by coaching staff |
| If the athlete can tolerate non-competitive, high-risk activities, progress to step 6. |
| **6** | Return to sport | Unrestricted sport and physical activity  |  |
| **Return to sport is complete.** |