

## Multiple concussions: how are they managed and why?

If you have sustained multiple concussions (either many over a long period, or a few over a shorter period) it is likely that our medical team will refer you to the Complex Case Clinic so that concerns around this can be discussed. The aim of this is not that the doctor advises whether it is safe or not to continue playing contact sport but rather to arm you and your family with the correct information so that you can make an informed decision yourself.

The below gives a broad overview of the area but is not designed to replace medical advice that will vary from patient to patient.

### Introduction

A concussion is a form of minor traumatic brain injury (mTBI), and as a result must be taken seriously. Concussions have both short and medium-term risk - hence the need to identify the injury early and ensure safe and appropriate onward management - but there's been a growing recognition of possible long-term effects. This is particularly important to consider in the context of multiple concussions.

### What do we know?

There have been long standing suspicions that multiple concussions can have long term effects upon brain function.

More recent research indicates that there is now little doubt that multiple minor traumatic brain injuries are linked to long-term poor brain health and higher risk of issues such as dementia. It's important to note though that there are other factors at play (genetics, lifestyle etc) and that emerging evidence is leaning more towards frequent low-level brain impacts – so called 'sub-concussive' incidents - being the biggest factor in long term issues rather than concussions specifically.

### How many is too many? And what is the guidance?

There is no simple answer to this question. If you have experienced 3 concussions in an 18-month period, or 2 in quick succession, you will be reviewed by a senior doctor at Return2play, but as it stands there are no definitive guidelines relating to continued participation in contact sport. It is important to consider each case individually, taking into account recovery times from previous concussions, and time between concussive episodes. If you have suffered two or more concussions in a short space of time your doctor may however recommend a longer period of time away from contact sport.

### What does this mean for me?

Making the right decision when it comes to considering future participation in contact sports is not easy. Symptoms are often non-specific, and issues unrelated to brain recovery (vision and balance problems, neck muscle spasms etc.) often contribute to a prolonged recovery. Furthermore, there are individuals who seem to have a low personal threshold for symptom occurrence which may pre-dispose them to being symptomatic even at lower forces.

As it stands, it's not currently possible to accurately estimate the level of risk of continuing to play contact sports following repeated concussions. Ultimately it will be a personal decision between yourself and your parents.