



PROTOCOL FOR SAFE RETURN TO TRAINING & EVENTUALLY COMBAT SPORTS COMPETITION

The Goal of this protocol is safe return to Combat Sports training & eventually competitions without risking exacerbating symptoms.

WHAT IS A CONCUSSION?

Concussions occur following a trauma to the brain that leads to an alteration of regular brain function. The brain can take up to 30 days to resume regular brain function. Additional trauma to the brain while it is in an impaired state may lead to significantly worsening symptoms that can linger.

THE PROTOCOL EXPLAINED

The protocol is divided into 3 Phases which is further divided in to 3 Steps at each Phase. A fighter should start Phase 1 a week from initial concussion. A fighter can progress to the next Step after 24 hours if there are no concussion symptoms. If symptoms increase then the fighter must regress one step. A fighter should not progress to Phase 3 if there are lingering concussion symptoms.

Fighters should get cleared by a medical professional trained in concussion management before returning to training/competition.

PHASE 1: RETURN TO GENERAL FITNESS

STEP 1	LIGHT AEROBIC ACTIVITY	Stationary biking & elliptical, incline walking: gradually escalating the heart rate and monitoring through perceived exertion and/or HRM
STEP 2	MODERATE AEROBIC ACTIVITY	Jogging, swimming: escalating heart rate to moderate and high demand activity through HRM or perceived exertion, assess high level vestibular functioning
STEP 3	SPORT SPECIFIC ACTIVITY	Sprinting, mitts, bag/footwork and so on: increasing duration, no partner work. Begin resistance training

PHASE 2: RETURN TO NON-CONTACT FIGHTING ACTIVITIES

STEP 1	BAG/MITT WORK WITH MOVEMENT	Tests fighter ability to punch and/or kick in multiple planes & testing vestibular and visual systems
STEP 2	SHADOW	Reintroduces fighter to sport environment and re-



	BOXING/DRILL	establishes footwork in ring parameter and surface
STEP 3	COMBINATION EXCHANGES	Fighter begins to spar without the concern of contact. Reacts to opponent's movements and begins to get timing back for punches, kicks and body position.

PHASE 3: RETURN TO CONTACT/SPARRING FIGHTING ACTIVITIES (PLEASE NOTE THAT FIGHTER MAY ONLY ADVANCE TO THIS PHASE WHEN CONCUSSION SYMPTOMS HAVE COMPLETELY RESOLVED AND AFTER CLEARANCE FROM A PHYSICIAN)

STEP 1	SPARRING: SHORT DURATION	First step of live sparring. Rounds of short duration with long breaks. Number of rounds is small to begin with and then can increase as tolerated
STEP 2	SPARRING: LONGER DURATION	Rounds at this step begin to lengthen in duration while breaks between rounds shorten. Number of rounds can also increase as fatigue allows
STEP 3	SPARRING: NORMAL PARAMETERS	Full return to normal training. Return to normal rounds and time limits based on next potential bout. Fighter should be able to tolerate normal parameters of training/sparring and is training as normal without a return of symptoms.

CONCUSSION SYMPTOMS

1. Dizziness
2. Blurred Vision
3. Balance Problem
4. Sensitivity to light
5. Sensitivity to noise
6. Feeling slowed down
7. Feeling like "in a fog"
8. "Don't feel right"
9. Difficulty concentrating
10. Difficulty remembering