



Appendix B

Guidelines for Prevention of Concussions

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Guidelines for Prevention of Concussions

Artistic Swimming injury prevention culture

Canada Artistic Swimming's priority is the prevention of injuries and safety of all participants in artistic swimming. We take the subject of injuries very seriously and are committed to ensuring we have tools and policies in place that protect all our participants. Coaches are trained to build programming around injury prevention; to develop physical weaknesses, to implement recovery strategies, to helping athletes understand performance fuelling (nutrition), and performance planning.

Canada Artistic Swimming's Centre of Excellence athletes are supported by a staff physiotherapist and staff Sports Medicine Doctor, as well as an Exercise Physiologist, Biomechanists, Strength and Conditioning coaches, and a Sport Nutritionist as part of their Integrated Support Team (IST) assessing the well being and health of the athletes.

Canada Artistic Swimming's National Development Program uses IST members during their training camps and competitions.

Canada Artistic Swimming encourages all clubs attending the Qualifier/Canadian National Championships annually to develop and implement an IST that supports their competitive athletes on a yearly basis.

Canada Artistic Swimming concussion prevention strategy

Daily training:

- Ensure your athletes are well rested prior to each practice session.
- Ensure coaches have a copy of CAS Concussion Guidelines.
- Ensure coaches have copies of the Concussion Recognition Tool 5 – CRT5 at every practice.
- Ensure coaches have a written Emergency Action Plan and follow the procedures in a suspected concussion occurs (to be developed in conjunction with the training facility).
- Ensure your athletes are educated and understand how to swim properly in lap swimming.
- Ensure your athletes understand the importance of being aware of their surroundings and other athlete when training underwater, specifically in highlight training.
- Ensure your athletes don't dive into shallow water.
- Teach artistic swimming movements out of pattern in routines and on same count pattern, to ensure all underwater kicks are synchronized and purposeful.
- Ensure athletes are aware of their teammates' locations in land-drill.
- Ensure athletes are aware of their teammates' locations during their team routine swims and keep their knees/ legs and arms as close to their bodies as possible.

Highlight and Connected figure/ hybrid Recommendations



Recreational athletes are not encouraged to learn or train any lifts (platform, stacks and throws). Recreational athletes can learn and train floating patterns and connected/ joined hybrid figures and arms.

Competitive Athletes:

Considerations:

- Athletes must commit to 100% focus when training and competing lifts.
- Coaches must educate athletes on absolute focus required in training lifts in practice and competition, all eyes should always be on the flyer and to anticipate any wrong movement.
- Coaches are encouraged to consider placement of lifts; more difficult lifts should be done at the start of the routine, when athletes are less fatigued.
- Coaches are encouraged to use floating patterns, simple stacks, and unidirectional throws/ jumps for highlights at the end of the routine (more relevant for 12U routines).
- Coaches are encouraged to use alternative lifts if a lift continually fails or is unsafe for athletes.
- Coaches are requested to ensure all appropriate skills are acquired before commencing lift training and development of lifts, ie: if not all athletes all able to properly eggbeater, the team should not start lift training.

Highlight Safety

(We wish to thank Vanessa Keenan for the following contribution on Highlight Safety)

The most important thing to consider is choosing highlights that are appropriate for your own team's abilities. This includes physical abilities and cognitive abilities. For example, your team can throw someone up metres in the air, but that swimmer may lack the awareness of swimmers around them and if that is the case, then the throw should not be performed.

Remember that highlights do not need to be lifts or throws either. Highlights need to be something memorable. This could be a float, a unique pattern change, a partner figure, a cadence movement, etc.

Here are some guidelines:

- When teaching beginners highlights, start off with all the swimmers on land. Make sure they all know exactly what they are required to do. Have the swimmers show you how they will grab or hold and/or how they will move through the element.
- Depending on the equipment you have available and the type of highlight you are doing, you could have the swimmers do the set-up on land without the top person. This works really well for a classic throw where there is one person on top, a base (the person(s) being stood on or providing support) and a swimmer on each foot. The swimmers should be dry and the coach (es) help get the swimmers in position. Check out the holds and positions on land. Once the team can hold the position with accuracy then move to the next step.
- On land give the swimmers counts for the highlight. When do they grab on (they will train that in the water), when do they "squish", when do they "push" and when do they let go. Have them train the squish and push on land. Coaches are watching for the push from each foot to come at the same



time and at the same level as well as the base swimmer standing evenly. Once there is good balance and consistency in the movements, show any extra swimmers where they go in the highlight. Ensure they know all the counts before moving on to the next step.

- ☞ In the water have the main part of the highlight do just the set-up. No one on top. Once that is solid, practice the grab, squish, push and let go counts. Add the extra swimmers once the timing and stability is there.
- ☞ If everything underneath the water is stable and consistent add the top swimmer. The top swimmer is only allowed to stand up. These are the rules for the top swimmer:
 - ☞ If you do not feel ready for the highlight, roll off and away from the swimmers below you.
 - ☞ Always be listening for the coach. Sometimes even swimmers from other teams can cross your path accidentally or perhaps you moved more than usual and are close to the wall.
- ☞ Coaches should use the microphone so you can tell a highlight when to stop. Often a coach can see errors that may lead to a problem.
- ☞ The base swimmer needs to be aware of the top person. If she senses there is a chance a swimmer is coming down on her she should put her arms over her head to protect her head.
- ☞ Make sure the base swimmer has strong, uninjured shoulders. All the standing and jumping off the shoulders can lead to more harm.

If you have a throw of some kind, the swimmer on top needs to know precisely how to do her moves. I suggest working with a diving or acrobatic coach at least once a week. If the top person feels the highlight will not work they roll off or just jump away from the team. Sometimes the top person may not feel ready for a flip or twist, but they can still pull off a plain jump. That is safer than just trying to make a highlight work like it should.

In terms of choreography there are some things to consider as well.

- ☞ Make sure the swimmers have enough time to properly execute the highlight.
- ☞ Make sure swimmers have a direct path to the highlight. Swimmers crossing paths can lead to confusion underwater, swimmers being late to their positions and uneven push of the base of the highlight.
- ☞ Make sure your swimmers can count the music. In land drill all swimmers need to know the grab, squish, push and let go counts.
- ☞ Use the appropriate swimmers in the appropriate places. Sometimes your lightest swimmer is not the best to go on top. They could be scared, unaware of their own body, maybe they do not know how to jump.
- ☞ Consider keeping highlights simple for the beginning of the season and increasing the difficulty as the season and the swimmers' ability progresses.
- ☞ If a throw is not well-executed in training DO NOT put it in your routine in competition. Instead train it and show it off at water shows on its own until it is well-executed 80% of the time. (Might even be a good idea for younger swimmers to have a highlight event where they could show off a highlight to counts outside of the routine).

The key points are:

- Everyone needs to know their job. This includes the coach.
- Everyone needs to know the counts. This includes when is the coach going to start counting on the microphone. Try to count the numbers as well so everyone knows exactly where they are.
- Everyone needs to do the highlight correctly before someone goes off the top.
- Everyone needs to know what to do if something goes wrong.



