

# USA Curling Strength & Conditioning



*FY-11-012 Program Overview*

## Introduction:

The strength and conditioning program summary highlights details of the program components. Important to note is that this program does not cover any in season “maintenance work”. This will be developed at a later time for those who desire to participate in a structure, ongoing strength program. At best, this document is a simplified summary to provide teams and athletes a snapshot of what the formalized, comprehensive strength program would entail. For those athletes and teams who desire to participate in the provided strength and conditioning program additional resources can be provided to help you and your team transition into the structured program. They are as follows:

- The complete 12 week strength and conditioning program with bi weekly record sheets.
- A strength program record sheet diagram outlining key areas of the record/workout sheet.
- Individual dynamic warm up sessions and background information.
- Program follow up with National Coaches, Head Team coaches and teams as needed.

## Program Summary:

The overall strength and conditioning program is designed for twelve weeks. The program is designed around a bi-weekly modification to the number of sets and repetitions to help prevent against accommodation- the point where your body no longer adapts to the training stimulus ( in this case strength) and performance declines due to lack of physical adaptation. The program developed for the twelve weeks alternates between weeks of low and high intensity in the attempt to stimulate hypertrophy and strength gains respectively over the course of the twelve week period. The weeks of higher intensity use more sets, fewer repetitions, and much heavier loads. The variation of the load is important. When the sets and repetitions are reduced it is critical to use a weight/load for the exercise that is very difficult but allows the maintenance of excellent technique. I have labeled these as heavier, heavy, and maximal. In addition, the moderate loads should increase throughout the course of the program so that the ending load at week twelve is greater than the starting “moderate load” at week one. In the future, when athletes have developed the proper strength base and mastered lifting mechanics the testing and prescription of specific individual loads can occur. While many methods could have been chosen; this mixed methods approach will better meet the needs of individual teams and athletes at this juncture in the year. It is also well tested and will serve those athletes who follow the program well.

The program is based around three 75 to 90 minute (maximum) sessions per week which integrate three dynamic warm up routines, the “core” pressing, pulling, and lower extremity exercises taught at the camp, and three core strength programs. The time can be reduced further to 60 minutes by tweaking various components. As you master the program it should take no more than 75 minutes to complete.



## Strength & Conditioning Program: 12 week Snapshot

The table illustrates the 12 week bi-weekly format alternating low and high intensity. The highlighted areas on weeks six and twelve indicate a reduced number of sessions to allow for a small recovery period. This table is included in the PDF program file as a quick snapshot of the program.

Training Week	Dates	Sessions Per Week	Sets, Reps	Load Weight	Recovery Exercises/Sets	Lift Timing Ecc:Hold:Con	Core Session
One	8/8-8/14	3	3,12	Moderate	30/60	N/A	B-1
Two	8/15-8/21	3	3,12	Moderate	30/60	N/A	B-1
Three	8/22-8/28	3	4,6	<b>Heavier</b>	60/90	N/A	B1 & B2
Four	8/29-9/4	3	4,6	<b>Heavier</b>	60/90	N/A	B1 & B2
Five	9/5-9/11	3	3,10	Moderate + weight	30/60	N/A	B2
Six	9/12-9/18	2	3,10	Moderate + weight	30/60	N/A	B2
Seven	9/19-9/25	3	5,4	<b>Heavy</b>	60/90	N/A	B2 & B3
Eight	9/26-10/2	3	5,4	<b>Heavy</b>	60/90	N/A	B2 & B3
Nine	10/3-10/9	3	3,8	Moderate + weight	30/60	N/A	B3
Ten	10/10-10/16	3	3,8	Moderate + weight	30/60	N/A	B3
Eleven	10/17-10/23	3	6,3	<b>Maximal</b>	60/90	N/A	B1, B2,B3
Twelve	10/24-10/31	2	6,3	<b>Maximal</b>	60/90	N/A	B2 & B3

## Weekly & Daily Program Structure:

The overall daily sessions three times per week should run in the order as listed below. A recommended weekly format is to make day one, Monday, day two Wednesday or Thursday, and day three Friday or Saturday. An example would be Monday, Wednesday, and Saturday to allow for two days of recovery. It's important to remember the body loves consistency. This is integral to positive strength adaptations. Be sure to develop and adhere to a regular schedule at a regular time.

Daily Session Example	Session Area-Emphasis	Time
Day 1-Monday	<b>Dynamic Warm Up # 1</b> -Lunge, Squat or Combined Movement Emphasis- <b>Strength Program</b> -Push, Pull, Leg Complex Progression- <b>Core Session</b> Session 1-Session 3-	<b>20-30 Minutes</b>  <b>30-40 Minutes</b>  <b>15-20 Minutes</b>
Total time		*75-90 Minutes

## **Dynamic Warm Up:**

An explanation of the philosophy and methodology to using a dynamic warm up is attached as a separate PDF document in the warm up folder. This document covers the design and principles of warm up in addition to the important components related to athletic development. Three warm up programs have been written- one specific to each of the weekly three strength and conditioning sessions. The exercises contained in each warm up will be taught at the camp however you can shorten and modify accordingly.

All dynamic warm up exercises stay the same for each of the three sessions. However the movement and mobility emphasis does change. Warm up number one (1) has a focus on lunge movements to develop strength and stability in all planes of motion. Warm up number two (2) has focus on squat movements to develop strength and stability in all planes of motion. Warm up three (3) is a combined focus and incorporates a combination of lunging and squatting movements. It is important to perform all three warm ups and not just one of the three. These have each been designed with the demands of curling in mind. These are the foundational movement series to aid in overall athletic development so as to help you become a better curling athlete. These can be shortened and simplified as needed.

## **Core Lifts:**

All lifts should be completed one set at a time. For example perform one complete set of pushing exercise and then complete a set of pulling exercises. Then switch back to the next push and pull exercises. Perform all lower extremity exercises last. Do not intermix lower extremity movements with pushing and pulling movements. For example each athlete should complete 4 x 6 DB Bench Press, then 4 x 6 Lat Pull Down, then 4 x 6 Incline DB Bench Press, then 4 x 6 High Low Cable Pull until each group of pushing and pulling exercises are complete. The goal is to always couple a complete set of pushing with a complete set of pulling, exercise, etc. Only use a weight that allows you to maintain proper technique. Dumbbells may be substituted for the bar and exercises modified accordingly.

## **Core Strength Exercises:**

The development of the necessary core strength is a critical piece in athlete development and central to optimal performance. Three core strength sessions have been incorporated into the program. Each core sessions build on the exercises of preference.