



# BODYWEIGHT

TRAINING SYSTEM



**BTS**

*CF Fitness Anytime, Anywhere*





## FOREWORD

Physical fitness is inherent to mission readiness both domestically and abroad. CF personnel may not always have access to a fitness facility or equipment while deployed or on travel-related duty. Bodyweight exercises do not require free weights or resistance training equipment. This training manual provides an easy-to-follow, integrated training regimen that will enable CF personnel to maintain a fitness training routine in less than ideal conditions. The exercises included can be performed anywhere, at any time, with limited physical space and with no equipment. For additional fitness programming support and resources, visit us at [www.DFIT.ca](http://www.DFIT.ca).

Daryl Allard  
Director of Fitness

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# BODYWEIGHT TRAINING SYSTEM

## ACKNOWLEDGEMENTS

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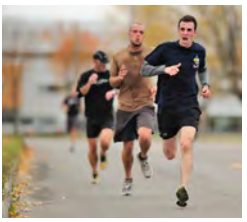
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## INTRODUCTION

Members of the Canadian Forces must be physically fit to meet the demands of operations. A combination of health- and performance-related fitness components contribute to their ability to function in complex and challenging environments. These components include cardiovascular endurance, muscular strength and endurance, mobility, flexibility, agility, balance, coordination, speed and power. Members must also demonstrate a high level of functional fitness – the ability to use these trained components to perform military-related tasks efficiently and effectively.



When members do not have access to a fitness facility or equipment, they can use bodyweight exercises to maintain cardiovascular and muscular endurance. Bodyweight exercises, such as the push-up, squat and lunge, do not require free weights or resistance training equipment because the weight of the body provides

resistance for each specific movement.

The Bodyweight Training System (BTS) is a physical fitness training program that can be performed anytime, anywhere, with limited physical space, and no equipment.

# BODYWEIGHT TRAINING SYSTEM

The BTS is a bodyweight exercise program that combines functional training, core exercises, and aerobic workouts to enhance endurance, mobility, agility, and power. Each training session is made up of three basic building blocks: warm-up, workout, and cool-down.

## Warm-Up (10-15 minutes)

The warm-up consists of light aerobic activity, stretching, mobility, and specific movement preparation. Exercises progress gradually in both complexity and intensity. The warm-up will:

- prepare your body for the demands of the workout
- provide an opportunity for mental preparation
- introduce skills through rehearsal
- enhance performance



## Workouts (10-30 minutes)

The BTS contains three types of workouts that are included in the weekly exercise sessions:

- **Bodyweight Training (BT)** workouts consist of functional multi-joint movements, such as the squat and lunge, which use bodyweight to develop muscular strength and endurance.
- **Aerobic (AR)** workouts include continuous full-body movements of varying intensity with the objective of enhancing cardio-respiratory function. Running on the spot, jumping jacks and quick feet are examples of exercises included in AR workouts.
- **Core Stability (CS)** workouts consist of exercises such as the bird dog and planks, which develop the ability to stabilize the body during movement by targeting the muscles of the abdominal wall, pelvis, and lower back.



## Cool-Down (5-10 minutes)

The cool-down is performed after the workout and consists of low intensity aerobic and flexibility exercises. The cool-down will:

- gradually transition your body to a normal resting state
- restore your heart rate and blood pressure to pre-exercise levels
- optimize your recovery process and improve flexibility



## GETTING STARTED

The BTS is designed for CF personnel who have already demonstrated the ability to meet the CF Minimum Physical Fitness Standards (MPFS).

Personnel who are unable to meet the current MPFS should consult Personnel Support Program (PSP) fitness staff for an appropriate exercise prescription.

## Check Your Health

Some individuals may require medical clearance before they start an exercise program. The two health appraisal questions below are used to identify personnel for whom physical activity may be inappropriate at this time.

If you answer **YES** to one or both questions, you should consult your Medical Care Provider prior to beginning this program.

Health Appraisal Questions	Yes	No
To the best of your knowledge do you have a medical condition or Medical Employment Limitation that restricts you from participating in a fitness evaluation or a progressive training program?		
Is there any other reason you would like to talk to a physician prior to your fitness evaluation or training program?		

## Fitness Check

The BTS has three levels to accommodate varying degrees of physical fitness. The Fitness Check is used to identify your appropriate starting level and will serve as a benchmark to verify training improvements. To determine your appropriate starting level:

- complete each of the fitness checks
- record your respective time/repetitions on the progress chart (Table 1)
- identify the corresponding level for each of the three exercises using the Fitness Check Reference (Table 2)

You are ready to change programs when you can perform all of the fitness tests for the prescribed time/repetitions of the next level. Each of the levels should be seen as the foundation before you progress to the next stage. Complete warm-up 1 (WU 1) before attempting the fitness check and finish with cool-down 1 (CD 1).

The fitness check is comprised of three fitness tests:

### Lower Body Muscular Endurance (Squat Test)

Note: Stop the test if you experience any pain or discomfort.

- From a standing position, descend until the top part of the thigh is parallel to the ground.
- Stop the descent if heels raise, knees turn inwards, or neutral spine is lost.
- Lower for a count of 2 seconds, pause for one second at the bottom, and return to the start position for a count of 2.
- Record the number of squats completed without stopping.
- Only squats completed correctly should be counted - reference the Squat Technique section for additional information.





## Upper Body Muscular Endurance (Push-Up Test)

**Note:** Stop the test if you experience any pain or discomfort.

- Assume a push-up position with the hands flat on the floor shoulder-width apart, point your fingers forward, and maintain a straight line from your shoulders to your heels.
- Lower yourself until the backs of the upper arms are parallel to the floor and rise until the arms are straight.
- Record the number of push-ups completed without stopping.



## Core Endurance (Plank Test)

**Note:** Stop the test if you experience any pain or discomfort.

- Support yourself with the forearms and toes.
- Hold this position and maintain a straight line from your shoulders to your heels.
- Keep the feet together and the shoulders positioned directly above the elbows.
- Maintain the position until you can no longer keep a straight body position.
- Time and record your performance in seconds.



The initial fitness check must be performed at least 48 hours prior to commencing the first week of the BTS.

## Table 1: Fitness Check Progress Chart

Fitness Test	Initial		Week 5		Week 10		Week 15	
	Score	Level	Score	Level	Score	Level	Score	Level
Squat								
Push-Ups								
Plank								

## Table 2: Fitness Check Reference

Fitness Component	Fitness Test	Level I	Level II	Level III*
		Beginner	Intermediate	Advanced
Lower Body Muscular Endurance	Squat	< 30 reps	30-75 reps	> 75 reps
Upper Body Muscular Endurance	Push-Ups	7-19 reps	20-30 reps	> 30 reps
Core Endurance	Plank	< 60 sec	60-120 sec	> 120 sec
* Prior to attempting level III, we recommend that you achieve CF MPFS incentive levels.				
sec - time in seconds; > - greater than; < - less than				

## GUIDELINES

Adhere to the following training guidelines to ensure that you complete the BTS safely and effectively.

**Proper technique:** Incorrect technique can result in injury. You should seek assistance from qualified PSP fitness staff to assess and coach exercise technique, specifically when new exercises are attempted.

**Important:** If you have pain, stop the workout immediately and seek medical advice.

**Quality versus quantity:** The technical performance of each exercise is more important than completing the prescribed repetitions. Stop to rest if your exercise technique begins to deteriorate.

**Modify exercise:** See PSP fitness staff to modify exercises that cause pain or discomfort.

**Train with a partner:** A partner provides motivation and support, assistance if an injury is sustained, and coaching on exercise technique.

**Correct breathing:** Breathing properly improves performance. You should exhale during exertion against a resistance and inhale during the less stressful phase of the exercise.

**Proper footwear:** Training shoes are designed for specific activities. You should perform these exercises using the appropriate athletic footwear.

**Fuel and hydration:** Proper nutrition will optimize your performance during training and help promote recovery after your workout. You should seek assistance from PSP health promotion staff for additional information. The Nutrition and Exercise chart (Table 3) provides information on what to eat before, during, and after exercise.

### Table 3: Nutrition and Exercise

<b>BEFORE</b>		
WHEN	3-4 hours before exercise	1-2 hours before exercise
GOAL	Provide energy and prevent dehydration and hunger during exercise	
FOOD	Eat a balanced meal rich in carbohydrates with some protein and low in fat	Eat a snack high in carbohydrates combined with a protein source
FLUIDS	Drink approximately 300-500 ml of water to maintain urine output	Drink approximately 150-350 ml of water
	Tip: Urine amount and color is a good indication of hydration status. Aim for pale yellow!	
SUGGESTIONS	<p>Meal Suggestions</p> <ul style="list-style-type: none"> <li>• Rice, vegetables, lean meat and milk</li> <li>• Pasta with tomato/lean meat sauce, apple sauce, and milk</li> <li>• Lean meat sandwich and juice</li> <li>• Pancakes with fruit, yogurt and nuts</li> </ul> <p><b>Tip:</b> Avoid trying new foods or drinks before or during competition.</p>	<p>Snack Suggestions</p> <ul style="list-style-type: none"> <li>• Bagel and chocolate milk</li> <li>• Granola bar, apple, and milk</li> <li>• Sport or energy bar with juice</li> <li>• Pita with hummus and vegetable juice</li> <li>• Peanut butter on bread with milk</li> <li>• Low-fat muffin and fruit yogurt</li> <li>• Fig bars and yogurt</li> </ul>

Continued on the next page.



	<b>DURING</b>		<b>AFTER</b>	
WHEN	During exercise less than 1 hr	During exercise more than 1 hr	0-30 minutes after exercise	2-3 hours after exercise
GOAL	Stay hydrated	Stay hydrated and provide energy	Replace fluids and rebuild muscles	
FOOD	Not needed	If needed, eat easily digested foods high in carbohydrates	<ul style="list-style-type: none"> <li>• Eat a snack as soon as possible</li> <li>• Aim for a low-fat, high-carbohydrate snack</li> </ul>	Eat a meal containing carbohydrates, protein and low in fat (include foods from the 4 food groups)
FLUIDS	<ul style="list-style-type: none"> <li>• Drink water to thirst</li> </ul>	<ul style="list-style-type: none"> <li>• Drink 150-350 ml of water every 15 or 20 minutes</li> </ul>	Drink fluids ASAP	
		<ul style="list-style-type: none"> <li>• Add a source of carbohydrates and minerals</li> </ul>	<b>Tip:</b> 1.5 litres of fluid needed for every weight loss kg during exercise	
SUGGESTIONS		<p>Sports Drink</p> <ul style="list-style-type: none"> <li>• Commercial or homemade</li> </ul> <p>Recipe</p> <ul style="list-style-type: none"> <li>• 500 ml orange juice</li> <li>• 500 ml water</li> <li>• 1.5 ml salt</li> </ul> <p>Be careful! Energy drinks and soft drinks are not good options as they slow rehydration</p>	<p>Snack Suggestions</p> <ul style="list-style-type: none"> <li>• Bagel and orange</li> <li>• Granola bar and juice</li> <li>• Low-fat muffin</li> <li>• 2 fig bars and yogurt</li> </ul>	<p>Meal Suggestions</p> <ul style="list-style-type: none"> <li>• Pasta with tomato/lean meat sauce, cheese, and a side salad</li> <li>• Chicken and vegetable rice, fruit salad, and milk</li> <li>• Tuna sandwich, raw veggies, and a glass of milk</li> <li>• Chili, bread, and milk</li> </ul>

# SCHEDULE

Table 4 outlines the workouts that are completed during a typical week of training. These workouts are enclosed and indexed numerically.

**Table 4: BTS Template**

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
BT Body-weight Training	AR Aerobic	CS Core Stability	BT Body-weight Training	AR Aerobic	OPTIONAL	Rest

Table 5 is a BTS schedule that provides weekly guidance on which warm-ups, workouts and cool-downs you should perform for each level.

Use this table to determine which training sessions you will complete on a particular day and week. Follow the exercise prescription to avoid injury, prevent overtraining, and obtain optimal results.



## Table 5: BTS Schedule Level I

	<b>LEVEL 1 (4 weeks)</b>	<b>RECOVERY WEEK</b>
DAY 1 MONDAY	WARM-UP: <b>WU 1</b> WORKOUT: Select one from <b>BT 1-4</b> COOL-DOWN: <b>CD 1</b>	WARM-UP: <b>WU 1</b> WORKOUT: <b>BT 1</b> COOL-DOWN: <b>CD 1</b>
DAY 2 TUESDAY	WARM-UP: <b>WU 1</b> WORKOUT: Select one from <b>AR 1-3</b> COOL-DOWN: <b>CD 1</b>	REST DAY
DAY 3 WEDNESDAY	WARM-UP: <b>WU 1</b> WORKOUT: <b>CS 1</b> COOL-DOWN: <b>CD 1</b>	WARM-UP: <b>WU 1</b> <b>FITNESS CHECK</b> WORKOUT: <b>CS 1</b> COOL-DOWN: <b>CD 1</b>
DAY 4 THURSDAY	WARM-UP: <b>WU 1</b> WORKOUT: Select one from <b>BT 1-4</b> COOL-DOWN: <b>CD 1</b>	REST DAY
DAY 5 FRIDAY	WARM-UP: <b>WU 1</b> WORKOUT: Select one from <b>AR 1-3</b> COOL-DOWN: <b>CD 1</b>	WARM-UP: <b>WU 1</b> WORKOUT: <b>AR 1</b> COOL-DOWN: <b>CD 1</b>
DAY 6 SATURDAY	OPTIONAL  WARM-UP: <b>WU 1</b> WORKOUT: Select one from <b>CS 1-2</b> or <b>AR 1</b> COOL-DOWN: <b>CD 1</b>	REST DAY
DAY 7 SUNDAY	REST DAY	REST DAY

Key: WU = Warm-up; BT = Bodyweight Training; CD = Cool-down;  
CS = Core Stability; AR = Aerobic

## Level II

	LEVEL 2 (4 weeks)	RECOVERY WEEK
DAY 1 MONDAY	WARM-UP: <b>WU 2</b> WORKOUT: Select one from <b>BT 5-8</b> COOL-DOWN: <b>CD 1</b>	WARM-UP: <b>WU 1</b> WORKOUT: <b>BT 1</b> COOL-DOWN: <b>CD 1</b>
DAY 2 TUESDAY	WARM-UP: <b>WU 2</b> WORKOUT: Select one from <b>AR 4-6</b> COOL-DOWN: <b>CD 1</b>	REST DAY
DAY 3 WEDNESDAY	WARM-UP: <b>WU 2</b> WORKOUT: <b>CS 2</b> COOL-DOWN: <b>CD 1</b>	WARM-UP: <b>WU 1</b> <b>FITNESS CHECK</b> WORKOUT: <b>CS 1</b> COOL-DOWN: <b>CD 1</b>
DAY 4 THURSDAY	WARM-UP: <b>WU 2</b> WORKOUT: Select one from <b>BT 5-8</b> COOL-DOWN: <b>CD 1</b>	REST DAY
DAY 5 FRIDAY	WARM-UP: <b>WU 2</b> WORKOUT: Select one from <b>AR 4-6</b> COOL-DOWN: <b>CD 1</b>	WARM-UP: <b>WU 1</b> WORKOUT: <b>AR 1</b> COOL-DOWN: <b>CD 1</b>
DAY 6 SATURDAY	OPTIONAL  WARM-UP: <b>WU 1</b> WORKOUT: Select one from <b>CS 1-2</b> or <b>AR 1</b> COOL-DOWN: <b>CD 1</b>	REST DAY
DAY 7 SUNDAY	REST DAY	REST DAY

Key: WU = Warm-up; BT = Bodyweight Training; CD = Cooldown;

CS = Core Stability; AR = Aerobic



## Level III

	<b>LEVEL 3 (4 weeks)</b>	<b>RECOVERY WEEK</b>
DAY 1 MONDAY	WARM-UP: <b>WU 3</b> WORKOUT: Select one from <b>BT 9-12</b> COOL-DOWN: <b>CD 2</b>	WARM-UP: <b>WU 1</b> WORKOUT: <b>BT 1</b> COOL-DOWN: <b>CD 1</b>
DAY 2 TUESDAY	WARM-UP: <b>WU 3</b> WORKOUT: Select one from <b>AR 7-10</b> COOL-DOWN: <b>CD 2</b>	REST DAY
DAY 3 WEDNESDAY	WARM-UP: <b>WU 3</b> WORKOUT: <b>CS 3</b> COOL-DOWN: <b>CD 2</b>	WARM-UP: <b>WU 1</b> <b>FITNESS CHECK</b> WORKOUT: <b>CS 1</b> COOL-DOWN: <b>CD 1</b>
DAY 4 THURSDAY	WARM-UP: <b>WU 3</b> WORKOUT: Select one from <b>BT 9-12</b> COOL-DOWN: <b>CD 2</b>	REST DAY
DAY 5 FRIDAY	WARM-UP: <b>WU 3</b> WORKOUT: Select one from <b>AR 7-10</b> COOL-DOWN: <b>CD 2</b>	WARM-UP: <b>WU 1</b> WORKOUT: <b>AR 1</b> COOL-DOWN: <b>CD 1</b>
DAY 6 SATURDAY	OPTIONAL  WARM-UP: <b>WU 1</b> WORKOUT: Select one from <b>CS</b> <b>1-2</b> or <b>AR 1</b> COOL-DOWN: <b>CD 2</b>	REST DAY
DAY 7 SUNDAY	REST DAY	REST DAY

Key: WU = Warm-up; BT = Bodyweight Training; CD = Cooldown;  
CS = Core Stability; AR = Aerobic

## RECOVERY

Recovery weeks and rest days are incorporated into the BTS to ensure you have the rest needed to regenerate, prevent overtraining, and maintain training quality throughout the program.

During a recovery week, the overall training volume is decreased and the fitness checks are repeated again to verify your progress.

Rest days are an important part of your training. Rest will allow your body to adapt to the training workouts and decrease the chance of injury. Rest days can include no activity or light recreational activities such as walking and cycling.

## BODYWEIGHT TRAINING WORKOUT (BT) TERMINOLOGY

**Progression:** Each level of the BTS contains workouts consisting of basic bodyweight exercises that are sequenced progressively. The levels consist of similar movements and exercises, but gradually progress in volume, sequence, intensity, and movement complexity as you move from BT 1 to 12 and from Levels 1 to 3.

**Repetitions and sets:** A repetition or rep is a single exercise movement. A set consists of a prescribed number of repetitions. For example, 2 sets of 12 reps is commonly written as 2 x 12.

The BTS workout will have the number of repetitions indicated next to the exercise name. For example, Jumping Jacks 20-30 indicates that 20 to 30 repetitions should be performed.

**Tempo:** Tempo is the speed at which you perform an exercise. It is commonly expressed as a numeric scheme such as 3:1:2. The numbers are seconds that you count during phases of the exercise. For example, during the squat exercise with a tempo of 3:1:2, lower to a squat position for a count of 3 seconds, pause for one second at the bottom, and return to the start position for a count of 2.

**Circuit:** The BTS contains circuit training. A circuit is one completion of all the exercises and is indicated by a number and letter.

Each exercise is marked by a number and these exercises should be completed in the assigned numerical order (1, 2, 3). For those exercises in a circuit that are marked with a number and letter (1a, 1b, 1c, 1d), the exercises must be completed sequentially in alphabetical order. Once the number of sets for each circuit is complete, you must move to the next exercise or circuit indicated by the number.

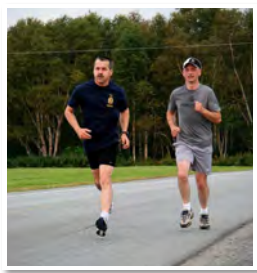
**Missed workouts:** If you miss a workout, continue with the schedule and try not to make up for the missed session. It is recommended that you re-start a training week if you missed 2 or more workouts.

## AEROBIC WORKOUTS (AR)

AR workouts contain training zones that indicate the prescribed intensity for the training session.

To follow the prescribed intensity or zones in the AR workouts, reference Table 6. Use the percentage of maximum heart rate (MHR), rating of perceived exertion (RPE) and perception to identify how hard you are working.

Using the prescribed training zones during your aerobic workouts will ensure that you meet the training objective.



## Table 6: Target Zones

Target Zone	Percentage of heart rate maximum	RPE	Perception	Duration	Physiological Benefit/ Training Effect
Zone 5 Maximum	90 -100%	9 -10	<ul style="list-style-type: none"> <li>• Impossible to speak</li> <li>• Exhaustion after effort + overbreathing</li> </ul>	0-2 minutes (Intervals)	Increases overall anaerobic speed and power
Zone 4 Hard	80- 90%	8	<ul style="list-style-type: none"> <li>• Fast increase of muscular pain</li> <li>• Impossible to carry on conversation</li> </ul>	2-4 minutes (Intervals)	Increases anaerobic tolerance
Zone 3 Moderate	70 - 80%	6 - 7	<ul style="list-style-type: none"> <li>• Progressive increase of muscular pain</li> <li>• Difficulty to carry out a conversation</li> </ul>	10-40 minutes	Enhances aerobic power
Zone 2 light	60 - 70%	5	<ul style="list-style-type: none"> <li>• No pain</li> <li>• Easy to speak</li> </ul>	40-60 minutes	Increases aerobic endurance
Zone 1 Very light	50 - 60%	3 - 4	<ul style="list-style-type: none"> <li>• No pain</li> <li>• Fatigue after 3-4 h</li> </ul>	>60 minutes	Speeds up recovery after heavier exercise



## Heart Rate

Once you determine the training zone and the corresponding intensity as a percentage of maximum heart rate (MHR), calculate your MHR and desired intensity. Use these heart rate zones during training to adhere to prescribed intensities.

### Calculating Maximum Heart Rate (MHR)

$$\text{MHR} = 220 - \text{age}$$

### Calculating Desired Intensity

Multiply the MHR by the percentage of desired intensity.

#### EXAMPLE

A 38 year old individual, attempting a workout intensity of 60-70%

$$\text{MHR} = 220 - 38$$

$$\text{MHR} = 182$$

Multiply MHR by the Desired Intensity (60%)

$$182 \times 0.60 = 109$$

Multiply MHR by the Desired Intensity (70%)

$$182 \times 0.70 = 127$$

## Rating of Perceived Exertion

The Borg Rating of Perceived Exertion (RPE) measures physical activity intensity level as perceived exertion.

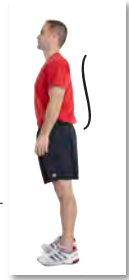
This rating is based on the physical sensations a person experiences during physical activity, including increased heart rate, increased respiration or breathing rate, increased sweating and muscle fatigue.

A person's exertion rating may provide an estimate of the actual heart rate during physical activity. The Borg RPE (Table 6) provides a rating scale and ranges from 1 to 10, where 1 indicates no exertion and 10 indicates maximal exertion.

## TECHNIQUE

### Neutral spine

Neutral spine and posture refers to the proper alignment of the body. In its natural alignment, a healthy spine has three natural curves and is not straight. There is a slight forward curve in the lower lumbar region, a slight backward curve in the upper thoracic region, and a slight extension in the tiny cervical vertebra at the top of the spine.



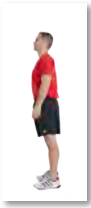
In addition, the ears, shoulders, hips, knees, and ankles are aligned as if a plumb line were running from the ears down through the torso into the legs and the feet. In a neutral spine and posture, the body is able to function in a position of strength. When the spine is left in a non-neutral posture during exercise, performance is negatively affected. **Neutral spine and posture should be maintained while performing exercises in the BTS program.**

### Squat and Lunge

The squat and lunge are fundamental movement patterns that are prevalent in daily activities such as jumping, lifting, stepping, climbing, or standing up from the ground. You should optimize the squat and lunge movement patterns before incorporating these exercises into a training program.

These movements are technical and demand proper execution. The squat and lunge should be performed without pain or discomfort and require proper joint alignment, muscle coordination, and posture. The correct technique to optimize the movement patterns are described for each exercise.

## Squat Technique



- **Start position:** In the start position the body is balanced, with the shoulders on top of the hips, knees and ankles. Foot position may vary, but placing the feet slightly further apart than shoulder width produces the strongest squat pattern.
- **Descent:** To initiate the descent of the squat movement, shift the weight back to the heels and flex at the hip. This movement is coordinated while inhaling and lifting the arms. Once the hips fall behind the heels, the knees begin to flex. Descend further by simultaneously flexing at the hips and knees. Maintain a neutral spine by lifting the arms and aiming the chest towards the front.



- **Depth:** Descend until the top part of the thigh is parallel to the ground. **Stop the descent if the heels raise, knees turn inwards or neutral spine is lost.**
- **Midpoint:** At the midpoint of the exercise the knees should sit on top and be in-line with the foot. The knees should face the same direction as the toes. The chest is up and out, and the back maintains a neutral spine.
- **Ascend:** Once you have met the midpoint key positions, exhale and ascend by extending the knee and hip joints to return to the start position.



### Midpoint Squat Key Positions:

- Look straight ahead or slightly up.
- Knees aligned over top of the feet.
- Chest is up and out.
- Heels in contact with the ground at all times.
- Maintain neutral spine.

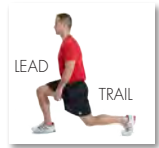


## Lunge Technique



- **Start position:** In the start position, the body is balanced with the shoulders on top of the hips, knees, and ankles. The feet are between hip- and shoulder- width apart and pointing forward.
- **Descent:** To initiate the descent of the lunge movement, step forward with your lead leg and place your foot about one leg length away from the starting position.

- **Depth:** Descend to a position where the lead thigh is parallel to the floor. The knee of the trail leg should not hit the ground.
- **Midpoint:** At the midpoint of the exercise the front knee should sit on top of the ball of the foot and remain in-line with the direction of the toes. The torso is erect and the chest is up and out. The back maintains a neutral spine.
- **Ascend:** Once you have met the midpoint key positions, exhale and ascend by forcefully pushing off the floor with the lead foot and extending the lead leg to return to the start position.



### Midpoint Lunge Key Positions:

- Lead foot is flat on the ground and the trail foot is on the ball of the foot with toes flexed. Both feet are aligned.
- Maintain neutral spine.
- Head is straight and centrally aligned.
- Front knee is in-line with the direction of the lead toes and the knee sits over the ball of the foot.





# EXERCISE VARIATIONS

## Squat Variations

Complexity of the squat depends on the foot and arm positioning and on squat depth. Use the charts below to decrease or increase the complexity of the squat exercise.

### SQUAT

INCREASING DIFFICULTY →

1/4 Squat	Squat*	Prisoner Squat*	Y Overhead Squat*	Overhead Squat*

### SUMO SQUAT

INCREASING DIFFICULTY →

1/4 Sumo Squat	Sumo Squat*	Prisoner Sumo Squat*	Y Sumo Squat*	Overhead Sumo Squat*

### JUMPS

INCREASING DIFFICULTY →

Jumping Jacks	Linear Jumping Jacks*	Squat Jump*	Tuck Jump*	Split Jump*

\* These exercises should be avoided by participants with chronic knee problems, low hip and back mobility, or quadricep weakness.

## Lunge Variations

Use the charts below to decrease or increase the complexity of the lunge exercise. Stepping direction and arm position are techniques used to vary the lunge.

### LUNGE

INCREASING DIFFICULTY →

		
Lunge	Alternating Lunge	Walking Lunge
		
Backward Lunge	Split Leg Squat	Lunge with High Knee



Notes

Complete 1-2 sets of the warm-up circuit

Jog on the Spot 1 min

1a



Easy light aerobic activity.

Jumping Jacks 20-30

1b



Jump in the air, spread feet and swing arms out, then back to the start position.

Hip Movement 5-8/Leg

1c



Perform each movement variation 5-8 times. Hold for 2 sec. Stand tall.

Arm Swings 8-10

1d



For each exercise swing arms in a controlled manner.

Donkey Kick 12/Leg

1e



From a kneeling position, extend leg and return to start position. Repeat.

Clam 20/Leg

1f



Lift the leg pivoting about the hip and heels.

Squat and Sumo Squat 5-8/Each

1g



Stop the descent if heels raise, knees turn inwards, or neutral spine is lost.

Notes

Complete 1-2 sets of the warm-up circuit

Jog on the Spot 1 min

1a



Easy light aerobic activity.

Jumping Jacks 20-30

1b



Jump in the air, spread feet and swing arms out, then back to the start position.

Hip Movement 5-8 /Leg

1c



Perform each movement variation 5-8 times. Hold for 2 sec. Stand tall.

Arm Swings 8-10

1d



For each exercise swing arms in a controlled manner.

Hip Circles 10/Leg

1e



Lift leg to the side and place the foot to the ground when the knee is in front of the body.

Downward Dog Exchange 5-8

1f



From a plank position, lift hips to the ceiling, pressing palms and heels to the ground.

Plank Lunge Exchange 6-8/Leg

1g



From a plank position, place foot under the shoulder, alternating with each rep.

**1h****Donkey Kick 10-12/Leg**

From a kneeling position, extend leg and return to start position. Repeat.

**1i****Fire Hydrant 10-12/Leg**

Lift leg to side for 10-12 reps.

**1j****Clam 20/Leg**

Lift the leg pivoting about the hip and heels.

**1k****Prisoner Squat 5-8**

Stop the descent if heels raise, knees turn inwards, or neutral spine is lost.

**1l****Prisoner Sumo Squat 5-8**

Stop the descent if heels raise, knees turn inwards, or neutral spine is lost.

**1m****Good Morning 8-10**

Maintain neutral spine and flex forward at the hip.

**1n****Double Leg Hops 20**

Land softly on balls of feet.

**1o****Single Leg Hops 10/Leg**

Land softly on ball of foot.

Notes

Complete 1-2 sets of the warm-up circuit.

Jog on the Spot 1 min

1a



Easy light aerobic activity.

Jumping Jacks 20-30

1b



Jump in the air, spread feet and swing arms out, then back to the start position.

Hip Stretches 5-8/Leg

1c



Perform each stretch variation 5-8 times. Hold stretch for 2 sec. Stand tall.

Arm Swings 8-10

1d



For each exercise swing arms in a controlled manner.

Hip Circles 10/Leg

1e



Lift leg to the side and place the foot to the ground when the knee is in front of the body.

Exchange 6-8 Reps

1f



From a plank position lift hips to the sky for 6-8 reps. Then lunge for 6-8 reps.

Donkey Kick 10-12/Leg

1g



From a kneeling position, extend leg and return to start position. Repeat.

1h

Fire Hydrant 10-12/leg



Lift leg to side for 10-12 reps.

1i

Clam 20/leg



Lift the leg pivoting about the hip and heels.

1j

Y Overhead Squat 5-8



Keep weight on the heels.

1k

Overhead Sumo Squat 5-8



Maintain neutral spine during the squat.

1l

Good Morning 8-10



Flex at the hips keeping a neutral spine as you bow forward.

1m

Leg Swing 5-8/Leg



Stand tall on the ball of foot and swing leg in a linear fashion.

1n

Lunge w/ Reach 5-8/Leg



Step forward to a lunge position and reach with opposite arm to the sky.

1o

Hops 20 and 10



Complete 20 reps of double leg hops and 10 reps of single leg hops.





**1a**

**Prisoner Squat 8-12**  
Tempo 2:0:2



Feet positioned shoulder width apart.  
Weight on the heels of the foot.

**1b**

**Box or Knee Push-Up 10-12**



Modify the push-up to complete 10-12 reps.

**1c**

**Alternating Lunge 6-8/leg**



Step forward to a lunge position and step back to the start. Alternate legs for 6-8 reps.

**1d**

**Bent Over Y 5 X 6 sec hold**



Flex at the hips with knees slightly bent.  
Lift arms and hold for 6 sec.

**1e**

**Jumping Jacks 20-30**



Jump in the air, spread feet and swing arms out, then back to the start position.


**1f**

**Bird Dog 3 X 5-8 sec/side**



Lift leg and opposite arm simultaneously. Keep body in-line. Alternate sides.


**1a** **Squat 8-12**  
Tempo 2:0:2




3 Sets

Feet positioned shoulder width apart.  
Weight on heels.

15-30 sec Rest



**1b** **Walking Lunge 6-8/Leg**



Step forward to a lunge position. Step forward to a standing position. Alternate legs.

**2** **Good morning 3 X 12-15**  
with 20 sec Rest




Maintain a neutral spine as you bend forward, flexing at the hips. Push hips behind heels.

**3** **Butt Kick 5 X 30 sec with 30 sec Rest Between Sets**



Keep shoulders relaxed.  
Complete 5 sets of 30 seconds with 30 seconds rest between sets.


**4a** **Plank 20 sec**




3-6 Sets

Maintain a neutral body position.

15-30 sec Rest



**4b** **Side Plank 10 sec**



Maintain a neutral body position.  
Perform side plank on both sides.

**1a** Jog on the Spot 30 sec



Jog quickly for 30 seconds.

**1b** Y Overhead Sumo Squat 8-12



Flex at the hip. Keep weight on the heels. Maintain neutral spine. Chest up and out.

**1c** Wide Push-Up RM



Hands are positioned outside the shoulder. Complete the maximum number of reps (RM).

**1d** Forward Lunge 6-8/leg



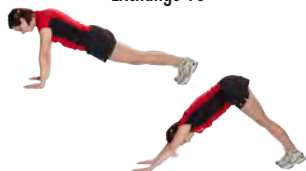
Step forward to a lunge position and step back to the start. Same leg for 6-8 reps.

**1e** Bird Dog Sweep 8/Leg








Lift leg and opposite arm simultaneously. Repeat for 8 reps and switch sides.

**1f** Plank Downward Dog Exchange 10




From a plank position, lift hips to the ceiling pushing through the palms and feet.

2-3 Sets	<p><b>1a</b>      <b>Jumping Jacks 20-30</b></p>  <p>Spread legs and arms to the side. Return to start position. Repeat.</p>	<p><b>1b</b>      <b>Prisoner Sumo Squat 8-12</b></p>  <p>Feet positioned outside shoulder width. Arms to the side and chest up.</p>
	<p><b>1c</b>      <b>Push-Up RM</b></p>  <p>Maintain a straight body from ear to heel. Complete the maximum number of reps (RM).</p>	<p><b>1d</b>      <b>Bent Over 3 Position 2 X 4 sec/position</b></p>  <p>Flex at the hips and maintain neutral spine. Raise arms and hold each position for 4 sec.</p>

2-3 Sets	<p><b>2a</b>      <b>Linear Jumping Jacks 20</b></p>  <p>Start with right arm and left leg forward. Hop and move the left arm and right leg forward.</p>	<p><b>2b</b>      <b>Backward Lunge 8/leg</b></p>  <p>Step backwards to a lunge position. Repeat with the same leg.</p>
	<p><b>2c</b>      <b>Lying 3 Position 2 X Hold 3 sec/position</b></p>  <p>Keep feet in contact with floor, maintain neutral spine, raise arms, and hold each position.</p>	<p><b>2d</b>      <b>Bird Dog Circles 10/Side</b></p>  <p>Lift arm and opposite leg simultaneously. Make 10 circles with the arm and legs.</p>


**1a** Prisoner Sumo Squat 12-15  
Tempo 2:0:2



2-3 Sets

Feet positioned outside shoulder width. Maintain neutral spine. Chest up and out.


**1b** Push-Up Side Plank 5-8/Side



2-3 Sets

Push-up to a side plank position. Repeat alternating sides.


**1c** Bent Over 2 Position  
Hold 6 sec/Position



2-3 Sets

Flex at the hips and raise arms. Hold position for 6 sec, relax and repeat with all positions.

**1d** One Leg Romanian Deadlift  
8-10/Leg



2-3 Sets

Flex at the hip and maintain neutral spine.

**2a** Mountain Climber 10/Leg



2-3 Sets

Bring right leg underneath chest. Alternate legs dynamically.

**2b** Lunge High Knee 6-8/leg



2-3 Sets

From a lunge position, stand and lift leg so the thigh is parallel.

**2c** Lying 3 Position 2 X  
Hold 3 sec/position



2-3 Sets

Keep feet in contact with floor, maintain neutral spine, raise arms, and hold each position.

**2d** Plank Lunge Exchange  
10/Leg



2-3 Sets

From a plank position, lunge the right leg forward to the side. Alternate legs.

**Overhead Sumo Squat 12-15**

**1a**

2-3 Sets



Raise arms overhead and complete sumo squat.

**Alternating Lunge Reach 8-10/Leg**

**1b**

15-30 sec Rest



Step forward with right leg and raise the left arm. Alternate legs and arms.

**Staggered Push-Up 5/Side**

**2a**

2-3 Sets



Stagger hand position. Complete 5 push-ups and alternate hand position.

**Good Morning 10**

**2b**

15-30 sec Rest



Flex at the hips and maintain neutral spine. Push hips behind the heels.

**Jumping Jacks 20-30**

**3a**

2-3 Sets



Spread legs and arms simultaneously and then back to start position.

**Shoulder Tap 10/Side**

**3b**

15-30 sec Rest



Maintain neutral spine. Touch the opposite shoulder. Alternate.

**Leg Abduction 10/Side**

**4a**

2-3 Sets



Place hands under back to maintain neutral spine.

**Bird Dog 10/Leg**

**4b**

15-30 sec Rest



Raise right arm and left leg. Keep body in-line and alternate.

**1a** Overhead Squat 12-15  
Tempo 2:0:2

**1b** Overhead Alternating Backward Lunge 8-10/Leg

3 Sets

0-30 sec Rest

Raise arms overhead. Weight on heels throughout. Chest up and out.

Step backward to a lunge position with arms overhead. Alternate legs.

**2a** One Leg Push-Up 5-8/Side

**2b** Clock Work 30 sec

3 Sets

0-30 sec Rest

Complete 5-8 push-ups with one leg raised. Alternate raised leg and complete 5-8 reps.

Step forward to the numbers on the clock and back to start position.

**3a** Pike Push-Up 8-10

**3b** Lying 3 Position Hold 3 sec/ Position

3 Sets

0-30 sec Rest

From a downward dog position, complete 8-10 push-ups.

Keep feet in contact with floor, maintain neutral spine, raise arms, and hold each position.

**4a** Plank Alternating Leg Lift 10/Leg

**4b** Alternating Jack Knife 10/Leg

3 Sets


0-30 sec Rest

From a plank position, lift one leg and alternate until 10 reps/leg are completed.

From a plank, lift the knee to the chest in a controlled manner. Alternate.




**1a** **Jumping Jacks 20-30**



2-3 Sets


Spread legs and arms simultaneously and then back to start position.

**1b** **Squat 12-15**  
Tempo 3:0:XX



Maintain technique. Lower for three seconds and explode up from the bottom of the squat.


**1c** **Lunge Forward and Backward 8-10/Leg**



2-3 Sets

Step forward with right leg, back to the start, and step backward with right leg. Repeat.

**1d** **Bent Over 3 Position**  
Hold 6 sec/Position



Flex at the hips and maintain neutral spine. Raise arms and hold in each position.

**2a** **Hip Mobility 15/Leg**



2-3 Sets

Stand tall, lift leg back, up and around until the knee and foot are in front of the body.

**2b** **Quick Feet 30 sec**



Step over a line and step back to the start position.

**2c** **Push-Up Plank Downward Dog 10**



2-3 Sets

Perform a push-up, finish with a plank, lift hips upward to downward dog. Repeat.

**2d** **Side Plank 20 secs/side**



Hold a straight line through the midline of the body.

**1** Squat Jump 5 X 5 with 30-60 sec full recovery



Squat down and jump. Land softly by flexing at the ankles and knees.

**4a** Walking Push-Up 12



As you extend the arms during the push-up, step forward with arm and foot.

**2a** Overhead Squat 12-15



Raise arms overhead. Weight on heels throughout. Chest up and out.

**4b** Bird Dog 10/Leg



Raise right arm and left leg. Keep body in-line and alternate.

**2b** Overhead Split Squat 8-12/Leg



Keep forward and backward legs in-line. Lower until lead leg thigh is parallel to ground.

**5a** Plank Alternating Limb Raise 5-8/Side



From a plank position, lift arm and opposite leg. Alternate.

**3** High Knee 5 X 30 sec with 30-60 sec full recovery



Relax shoulders. Keep toe up and thigh parallel to floor.

**5b** Side Plank Leg Raise 8/Side



From a side plank position, raise the top leg.

**Speed Jumping Jacks 30 sec**

**1a**

5 Sets



Complete jumping jacks quickly.

**Active Recovery 30-60 sec**

**1b**



Easy recovery with shuffle, light jog or rest.

**Y Sumo Squat 15-20**

**2a**

3 Sets



Flex at the hip. Keep weight on the heels. Maintain neutral spine. Chest up and out.

**Push-Up Shoulder Tap Exchange 5-8/Side**

**2b**

0-30 sec Rest



At the top of the push-up reach across and tap the opposite shoulder with hand. Alternate.

**Lunge Kick Exchange 10/Leg**

**3a**

2-3 Sets



From a lunge position, stand and kick leg forward.

**Lunge Forward and Backward 8/Leg**

**3b**



Step forward with right leg, back to start, and step backward with right leg. Repeat.

**Mountain Climbers 10/Leg**

**3c**

2-3 Sets



Maintain neutral spine. Bring right leg underneath chest. Alternate legs.

**Lying 3 Position Hold 6 sec/Position**

**3d**




Keep feet in contact with floor, maintain neutral spine, raise arms, and hold each position.


**1a** Split Squat Jumps 5-8/Side with full recovery

**1b** Active Recovery 30-60 sec

3 Sets



From a split squat position, jump and alternate position. Land softly.



Easy recovery with shuffle, light jog or rest.

**2a** Shuffle 30 sec

**2b** Active Recovery 30-60 sec

2-5 Sets



Place cones 5 meters apart and shuffle from cone to cone.




Easy recovery with shuffle, light jog or rest.

**3a** Slow Squat Low Walk Back and Forth 8-10/Side


**3b** Spider Push-Up 5-8/Leg

3 Sets



From a squat position, step laterally to a squat position. Step back towards other side.

0-30 sec Rest




At the bottom of the push-up position, raise knee to elbow.

**4a** Mountain Climbers 10/Leg


**4b** Bird Dog Sweep 10-12/Leg

3 Sets



Maintain neutral spine. Bring right leg underneath chest. Alternate legs.

0-30 sec Rest



Lift leg and opposite arm simultaneously. Repeat for 10-12 reps and switch sides.

**1** Squat 8 X (20 sec Squat:  
10 sec Rest)



Flex at the hip. Keep weight on the heels. Maintain neutral spine. Chest up and out.

**2** Push-Up 6 X (10 sec  
Push-Up: 10 sec Rest)



Maintain a neutral spine.

**3** Jumping Jacks 8 X (20 sec  
Jumping Jacks: 10 sec Rest)



Spread legs and arms simultaneously and then back to start position.

**4** Overhead Split Squat 6 Sets/Leg X  
(20 sec Split Squat: 10 sec Rest)



Keep forward and backward legs in-line. Lower until lead leg thigh is parallel to ground.

**5** Bird Dog 6 Sets/Leg X (20 sec  
Bird Dog: 10 sec Rest)



Lift leg and opposite arm simultaneously. Keep body in-line. Alternate.

**6** Quick Feet 8 X (20 sec Quick  
Feet: 10 sec Rest)



Step over a line and step back to the start position.

**7a** One Leg Romanian  
Deadlift 10/leg



Flex at the hip and maintain neutral spine.

**7b** Lying 3 Position  
Hold 6 sec/ Position

0-30 sec  
Rest



Keep feet in contact with floor, maintain neutral spine, raise arms, and hold each position.

2-3 Sets

## BT+



The BT+ workouts have been designed for members who have an advanced level of physical fitness. At this level, workouts consist of advanced exercises such as the tuck jump. Although these exercises are considered complex, individuals who have refined the squat and lunge movement patterns may be able to perform them safely and appropriately. Before progressing to the BT+ workouts, ensure that you can comfortably complete all of the level 3 workouts with relative ease.



**1a** Tuck Jumps 5

**1b** Active Recovery 30-60 sec

5 Sets



Jump and lift the thighs parallel to the ground. Land softly by flexing at the ankles and knees.

Easy recovery with shuffle, light jog or rest.

**2a** Overhead Split Squat 10-12/Leg

**2b** Active Recovery 30-60 sec

3 Sets



Keep forward and backward legs in-line. Lower until lead leg thigh is parallel to ground.

Easy recovery with shuffle, light jog or rest.

**3a** Pike Push-Up 8-12

**3b** Shoulder Tap 10/Side

3 Sets

0-30 sec Rest



From a downward dog position, complete 8-10 push-ups.

Maintain neutral spine. Touch the opposite shoulder. Alternate.

**4a** Plank Hold 30 sec

**4b** Side Plank Hold 15/Side

4-6 Sets

0-30 sec Rest

Maintain neutral spine.

Maintain a straight line through the midline of the body.

**1a** Split Squat Jumps 6-10/Side with full recovery

**1b** Active Recovery 30-60 sec

5 Sets

From a split squat position, jump and alternate position. Land softly.

Easy recovery with shuffle, light jog or rest.

**2a** Squat 20 Tempo 3:0:XX

**2b** Active Recovery 30-60 sec

3-4 Sets

Maintain technique. Lower for three seconds and explode up from the bottom of the squat.

Easy recovery with shuffle, light jog or rest.

**3a** Push-Up Plyo 5 with full recovery

**3b** Clock Work 60 sec

2-3 Sets

Push-up and jump off of the ground.

Step forward to the number on the clock and back to start position.

**3c** Alternating Jack Knife 15/Leg

**3d** Overhead Split Squat 8-12/Leg

2-3 Sets

From a plank, lift the knee to the chest in a controlled manner. Alternate.


Keep forward and backward leg in-line. Lower until lead leg thigh is parallel to ground.



**1a** Side to Side Hops 10/Side with full recovery

**1b** Active Recovery 30-60 sec

5 Sets




Hop from side to side. Land softly by flexing at the ankle and knee.

Easy recovery with shuffle, light jog or rest.

**2a** Burpee 10

**2b** Active Recovery 30-60 sec

3 Sets




Crouch down, move to a push-up position, step back to crouch and standing position.

Easy recovery with shuffle, light jog or rest.

**3a** Push-Up Shoulder Tap Exchange 5-8/Side

**3b** Lying 3 Position 6 sec Hold/Position

3 Sets



At the top of the push-up reach across and tap the opposite shoulder with hand. Alternate.


Keep feet in contact with floor, maintain neutral spine, raise arms, and hold each position.

0-30 sec Rest

**4a** One Leg Plank Hold 15 sec/Side

**4b** Side Plank 10 sec/Side

4-6 Sets



Hold a plank position with one leg raised. Repeat with alternate leg.

Hold side plank with lower leg raised. Repeat on the other side.

0-30 sec Rest

## Aerobic

<b>AR Workout</b>	<b>Work</b>
<b>1</b>	2-3 X 10 min at Zone 2 With 2-3 min recovery at Zone 1 between each rep
<b>2</b>	6-8 X 2 min at Zone 3 With 1-2 min recovery at Zone 1 between each rep
<b>3</b>	4-6 X 5 min at Zone 3 With 2-3 min recovery at Zone 1 between each rep
<b>4</b>	2-3 X 10 min at Zone 2-3 With 2-3 min recovery at Zone 1-2 between each rep
<b>5</b>	6-8 X 3 min at Zone 3 With 1-2 min recovery at Zone 1-2 between each rep
<b>6</b>	4-6 X 6 min at Zone 3 With 2-3 min recovery at Zone 1-2 between each rep
<b>7</b>	2-4 X 10 min at Zone 3 With 2-3 min recovery at Zone 1 between each rep
<b>8</b>	6-8 X 4 min at Zone 3 With 1-2 min Zone 1-2 recovery between each rep
<b>9</b>	8-10 X 2 min at Zone 4 With 2 min recovery at Zone 1-2 between each rep
<b>10</b>	10-12 X 30 sec at Zone 4 With 1 min recovery at Zone 1 between each rep

Reference Table 6 to determine the appropriate intensity using heart rate, RPE and perception.

## SAMPLE AEROBIC CIRCUITS

**1a**

**Quick Step 30 sec**



Step over the line and back to the start position.

**1b**

**Jumping Jacks 30 sec**



Spread legs and arms to the side. Return to start position. Repeat.

**1c**

**Shuffle 30 sec**



Place cones 5 meters apart and shuffle from cone to cone.

**1d**

**Jog on the Spot 30 sec**



## SAMPLE AEROBIC CIRCUITS

### Quick Step 30 sec

**1a**



Step over the line and back to the start position.

### Jumping Jacks 30 sec

**1b**



Spread legs and arms to the side. Return to start position. Repeat.

### Shuffle 30 sec

**1c**



Place cones 5 meters apart and shuffle from cone to cone.

### Hops 30 sec

**1d**



Two foot hops.

### Clock Work 30 sec

**1e**



Step forward to the number on the clock and back to start position.

### Jog on the Spot 30 sec


**1f**



# SAMPLE AEROBIC CIRCUITS


**1a** Quick Step 30 sec

4-6 Sets



Step over the line and back to the start position.

**1b** Speed Jumping Jacks 30 sec



Spread legs and arms to the side. Return to start position. Repeat.

**2a** Shuffle 30 sec

3 Sets



Place cones 5 meters apart and shuffle from cone to cone.


**2b** High Knee 30 sec



Relax shoulders. Keep toe up and thigh parallel to floor.


**3a** Clock Works 30 sec

3 Sets



Step forward to the number on the clock and back to start position.

**3b** Jog on the Spot 30 sec



**1a** Bird Dog 3-5 X 5-8 sec/Side



Lift leg and opposite arm simultaneously. Keep body in-line. Alternate sides.

**1b** Fire Hydrant 12/Leg



Maintain neutral spine and lift the leg to the side for 12 reps. Repeat with opposite leg.

**1c** Back Bridge Alternating Lift 15/Leg



Maintain neutral spine and keep a straight line from shoulder to knee.

**1d** Dead Bug 10/Side



Lower right leg and arm while the left leg and arm are raised. Alternate.

**1e** Plank Hold 15-20 sec



Maintain neutral spine.

**1f** Leg Abduction 15/Leg



Place hands under back to maintain neutral spine.

**1g** Side Lying Leg Raise 20/Leg



Raise the top leg for 20 reps. Repeat.

**1h** Side Plank 10-15/Side



Hold a straight line through the midline of the body.

1a

**Bird Dog 10-12/Side**



Lift leg and opposite arm simultaneously. Keep body in-line. Alternate sides.

1b

**Plank Downward Dog Exchange 10**



From a plank position, lift hips to the ceiling pushing through the palms and feet.

1c

**Back Bridge Alternating Leg Raise 15/Leg**



In the back bridge position lift one leg. Alternate.

1d

**Leg Abduction 10/Side**



Place hands under back to maintain neutral spine.

1e

**Fire Hydrant Limb Raise 12/Leg**



Lift the opposite leg and arm to the side.

1f

**Clam 20/Leg**



Lift the leg pivoting about the hip and heels.

1g

**Plank Leg Lift Hold 15 sec/Leg**



Hold a plank position with one leg raised. Repeat with opposite leg.

1h

**Side Plank 20/Side**



Hold a straight line through the midline of the body.

**Bird Dog Elbow to Knee 12/Side****1a**

Raise leg and opposite arm simultaneously. Lower and touch elbow to knee.

**Pike Push-Up 8-10****1b**

From a downward dog position, complete 8-10 push-ups.

**Side Plank Leg Lift 10/Side****1c**

From a plank position, raise top leg for 10 reps. Switch sides.

**Alternating Jack Knife 10/Leg****1d**

From a plank, lift the knee to the chest in a controlled manner. Alternate.

**Fire Hydrant  
Elbow to Knee 10/Side****1e**

Lift leg and opposite arm simultaneously. Lower and touch elbow to knee. Repeat.

**Back Bridge One Leg Hip Raise  
15/Leg****1f**

From a back bridge position, lift leg. Lower and raise hip. Repeat.

**Leg Abduction 10/Side****1g**

Place hands under back to help maintain neutral spine.

**Shoulder Tap 10/Side****1h**

Maintain neutral spine. Touch the opposite shoulder. Alternate.





1a

### Stretch to the Sky



Stretch to the sky.

1b

### Pec Stretch



Perform stretches.

1c

### Quad Stretch



Stand tall and bring heel to butt.

1d

### Hamstring Stretch



Flex at the hips keeping a neutral spine.

1e

### Hip Flexor



Step forward slightly with the right leg. Raise the left arm to the sky to intensify stretch.

1f

### Lat Stretch



Maintain a neutral spine.

1g

### Groin Stretch



Place the bottoms of the feet together and pull heels towards the body.

1h

### Glut Stretch



Bring leg across the body and hug the thigh.

1a

### Stretch to the Sky



Stretch to the sky.

1b

### Pec Stretch



Perform all stretches.

1c

### Hip Flexor



Step forward slightly with the right leg. Raise the left arm to the sky to intensify stretch.

1d

### Quad Stretch



Stand tall and bring heel to butt.

### Pike

1e



Maintain neutral spine and flex forward.

### Hamstring

1f



Maintain neutral spine and flex forward.

### Hamstring

1g



Pull knee towards chest. Switch legs.

### Groin Stretch

1h



Place the bottoms of the feet together and pull heels towards the body.

## ABOUT THE AUTHORS

### **Michelle Cormier-Brokop, BPE, CEP**



Michelle is the Royal Canadian Navy Physical Fitness Manager and has been working within the CF since 2000. She is an avid runner and has competed at the National and International level in the sport of Athletics. She is also a mother of two active boys and knows the value of fitness training that can be done anytime, anywhere.

### **Geoff Drover, BSc, CEP, CSCS**



Geoffrey Drover was a 2000 Canadian Interuniversity Sport All-Canadian Wide Receiver, member of the Canadian Football League Winnipeg Bluebombers from 2001-2004 and Strength and Conditioning Specialist with the Canadian Special Operations Forces. Currently Geoff works as the VCDS Group Physical Fitness Manager.

### **Mary-Beth McGinn, BSc, CEP, CPT-CC**



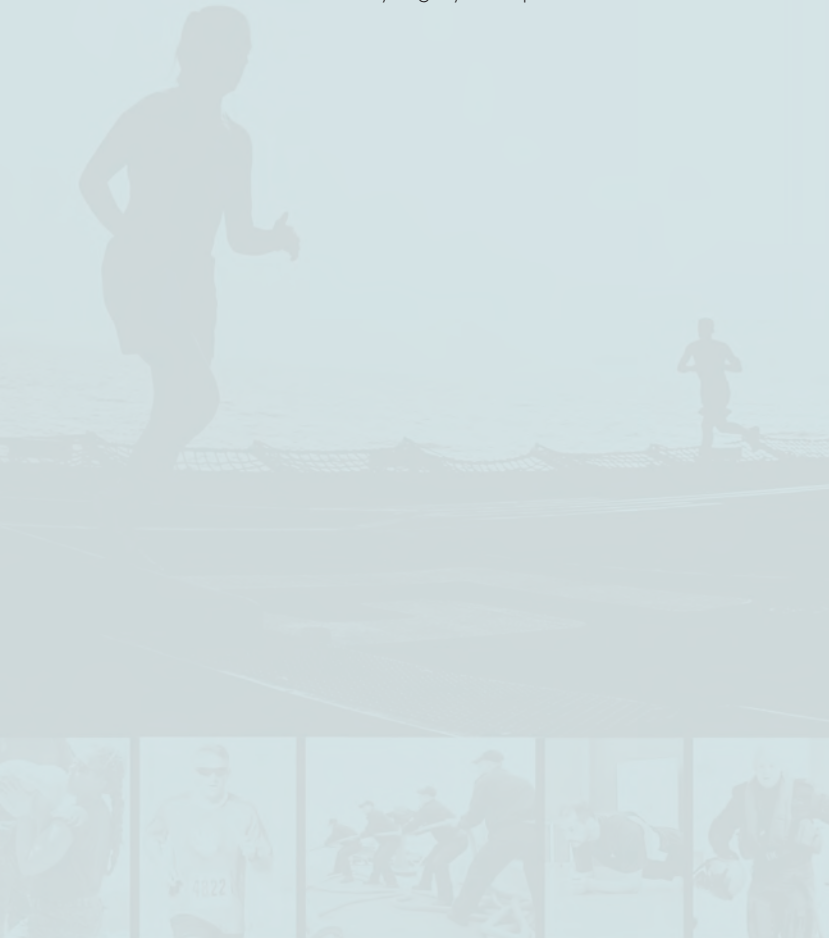
Mary-Beth McGinn is the Canadian Army Physical Fitness Manager and has been involved in CF fitness program delivery since 2003. She was a member of the University of Ottawa Women's Varsity Rugby team from 1999-2003 and was the Strength and Conditioning Coach from 2006-2008.

### **Todd Stride, MPM (c), CEP, CSCS**



Todd Stride is the Royal Canadian Air Force Physical Fitness Manager and has been involved in CF fitness program delivery since 1998. Todd developed elite fitness programs for CF Special Operations Forces and is a Certified Exercise Physiologist and Strength and Conditioning Specialist.

The Director of Fitness has developed the *Bodyweight Training System (BTS): CF Fitness Anytime, Anywhere*, which is a bodyweight physical fitness training program that can be performed anytime, anywhere, with limited physical space, and no equipment. The BTS is an exercise program for personnel of the Canadian Forces that combines functional training, core exercises, and aerobic workouts to enhance endurance, mobility, agility, and power.





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