

# FOOTBALL

Soccer is one of the most popular sports played worldwide and has a wide range of participants. People of all ages take part in football ranging generally from 5 to 60 years. Football is also a mixed ability sport, with the range of ability varying from professionals who play internationally to amateurs who play locally. Football is mainly played by able bodied people; however, variations of the game have been created for people who have disabilities such as blind, confined to a wheel chair as well as patients with chronic diseases.



In general, football is a sport with a wide range of movement intensities that involve maximal bursts of exercise followed by low-intensity movements. High-intensity movements, including running, jumping, sprinting and cutting are usually performed to gain an advantage over the opponent, with low-intensity movements then being desired to allow some recovery for the athlete before the next bout of high-intensity movements begin. Low-intensity actions are commonly performed during a football match and include jogging, walking, shuffling and standing. The constant motion during a football match, including various speeds, directions and distances at varying intensities, times and duration, requires the athlete to commit to fitness training in order to cope with the demands of the sport.

These intensities can be modified and tailored to individual needs for patients who have different chronic diseases. For example, all movement intensities can be reduced significantly to low intensity levels (walking instead of running), so that the sport can be enjoyed by patients with various conditions. As a result of this, walking football has indeed been developed as an alternative that can be used for public health and promotion of exercise in different populations, including older populations and those with chronic diseases. There are also specific rules for walking football, that help the intensities kept at a lower level (to actual football intensities), to avoid injury and significant strain to the heart, for vulnerable populations. The rules include no player is allowed to run (i.e. all players must walk) and a player must have one foot in contact with the ground at all times. Violation of these rules results in a direct free kick to the other team. The variations in this above concept are: jogging can be used instead of walking (for progression) and players can also play in pairs. All players must be connected to touch the ball i.e. holding hands or both holding something that connects them.

## Warm up (10minutes)

At low intensities, the warm up can include:

- a) Walking or brisk walking for 2-3 minutes x 2, with a 2 minutes light walking break
- b) Trunk rotations with hands on the waist
- c) Jogging on the spot (based on the level of the patient)

## Main Session (45minutes)

### Flexibility

#### Step 1 – Light movement

Light movement is advised prior to stretching. Light movement (walking, brisk walking and jogging depending on the patients abilities) depends on the ability of the patient but generally should last around 5 minutes.

#### Step 2 – Joint movements

Working from the inside out, the athlete should start by loosening the joints, tendons, and ligaments.

Table 17 highlights exercise that can be used as a sequence or in combinations for any patient:



**Table 17: Exercises based on a football training session for patients with chronic disease**

Exercise	Area worked	Reps/Duration
Big arm circles	Shoulders	15-20 circles then change direction
Small arm circles	Shoulders	30-40 circles then change direction
Standing twist	Lower back and trunk	15-30 seconds
Twist behind	Lower back and trunk	15-30 seconds
Hip flexor rotation	Lower back, lower abs, hip flexors	10-15 circles then change direction
Knee flex	Knee joint	20-30 reps
Knee circles	Knee joint	10-15 reps
Heel and toe raise	Gastrocnemius, soleus, tibialis anterior	15-20 reps

**Step 3 - Standing upper body stretches**

Exercise	Area worked	Reps/Duration
Lateral reach	Shoulders, upper and lower back	Continuous reach, 15-20 seconds each side
Overhead lateral bend	Rib cage, obliques, triceps, latissimus dorsi	Continuous reach, 15-20 seconds each side
Triceps and latissimus stretch	Triceps, latissimus dorsi, rib cage	Continuous reach, 15-20 seconds
Posterior shoulder stretch	Posterior shoulder and upper back	Continuous reach, 15-20 seconds

**Step 4 - standing lower body stretches**

Exercise	Area worked	Reps/Duration
Standing hamstring	Lower back, gluteus, hamstrings, calves	Continuous stretch, 15-20 seconds in each position
Lateral groin stretch	Groin, hamstrings	15-20 seconds in each direction
Three point lunge	Gluteus, hamstrings, hip flexors	15-20 seconds for each position

**Step 5 - seated and lying lower body stretch**

Exercise	Area worked	Reps/Duration
Seated hamstring	Lower back, gluteus, hamstrings, calves	Continuous stretch, 15-20 seconds
Butterfly	Groin	Continuous stretch, 15-20 seconds
IT band stretch	Illiotalibial band, gluteus	15-20 seconds
Lying lower back	Lower back	15-20 seconds

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## Cardiorespiratory Fitness

The integral part of football training is interval training, which is an excellent form of exercise to improve fitness. Interval training is also the recommended type of exercise utilised in rehabilitation centres for patients with cardiovascular conditions and patients with other diseases such as cancer and chronic inflammatory conditions. For walking football, interval training can be adapted to the patient's needs, by manipulating sets, repetitions, distances, times and rest intervals. Research has also shown that interval training has several advantages over typical low intensity continuous endurance training. This type of training has the ability to do a significantly greater amount of work by breaking up the total work into short bouts with full or shortened recovery periods and the ability to produce intensities which simulate the actual sport (in this instance walking football).



The focus of aerobic training should initially be to exercise the patients at least 2 times per week (first 1-2 months), with a progression of achieving the recommended guidelines (150 minutes per week).

Table 18 illustrates an aerobic exercise session based on football for patients with chronic disease.

Repetitions	Mode	Progression	Distance	Rest between Repetitions	Rest after set
6	Brisk Walking	Jogging	30 yards	30 sec	3min
6	Brisk Walking	Jogging	15 yards	20 sec	3min
10	Brisk Walking	Jogging	5 yards	10 sec	3min



## Strength

As highlighted in table 19 a combination of the football specific exercises can be utilised (once a week at the first 1-2 months with a progression of twice a week) to improve overall strength in patients with different chronic diseases:

Exercise	Time/Reps	Progression	Frequency	Break
Squat	8-10	15-10	3 times	30 sec
Squat with ball	8-10	15-20	3 times	30 sec
Slight knee bend (minimal squat) and Jump	8-10	15-20	3 times	1 min
Lunges	8-10	15-20	3 times	30 sec
Pull-ups with rope assistance	10	20	3 times	1 min
Light Weight Bench Press	8-10	15-20	3 times	1 min
Ball Twists	8-10	20	3 times	30 sec

### Comments

#### Squat

*In patients with lower functional disabilities\* do not bend much and focus on technique*

#### Squat with ball

*In patients with lower functional disabilities\* do not bend much and focus on technique*

#### Slight knee bend (minimal squat) and Jump

*In patients with lower or upper functional disabilities\*\* do not bend or raise arms much and focus on technique*

#### Lunges

*In patients with lower functional disabilities\* do not bend much and focus on technique*

#### Pull-ups with rope assistance

*In patients with lower and or upper functional disabilities\*\* do not bend much or extend arms much and focus on technique*

#### Light Weight Bench Press

*Medicine ball or dumbbells can be used. In patients with upper functional disabilities\*\* do not bend arms much and focus on technique*

#### Ball Twists

*In patients with upper functional disabilities\*\* do not twist much and focus on technique*

### Cool Down (10 minutes)

Slow walking around the court. Rotate arms and wrists while walking and focus on controlled breathing.

### General Comments

Basic football training incorporates exercises that can be very beneficial for patients with chronic diseases. It is recommended that during the first 1-2 months, the patient exercises using the above suggested activities before participating in an actual walking football training session. The purpose of this is to improve significantly the patient's fitness, strength and flexibility in order to avoid potential injuries. Using these flexibility and strength exercises, patients can improve significantly their range of motion and functional ability, which is very important for future enjoyable (and injury free) participation in walking football training. The coach/volunteer always needs to communicate with the patient during the training sessions for potential issues that may arise (pain/discomfort) and avoid complex movements/training exercises at the early stages of the training.

