

## SMI surfing injury prevention training

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## Introduction

Do you want to surf as much as possible in a healthy way? Do you want to reduce the risk of injuries?

The medical doctors and physical therapists of Surfing Medicine International have designed an injury prevention training program which will help you getting physically and mentally prepared for surfing.

The injury prevention training consists of 3 levels.

The first level exercises could be used for two different goals. You can do the quick version of level 1 as a warm up before your surf session, right at the beach. Or you can use the level 1 exercises for training purposes, even when you have no access to training facilities. The levels 2 and 3 are designed for more intense training of surf specific characteristics. With surfing, for example, you'll need spinal rotation to carve into your turns, lower limb stability to land airs and stay compact in the barrel, shoulder mobility and strength to paddle. Imbalance in shoulder strength due to paddling might be a risk factor for shoulder injuries. With this program, all above mentioned aspects of surfing are targeted.

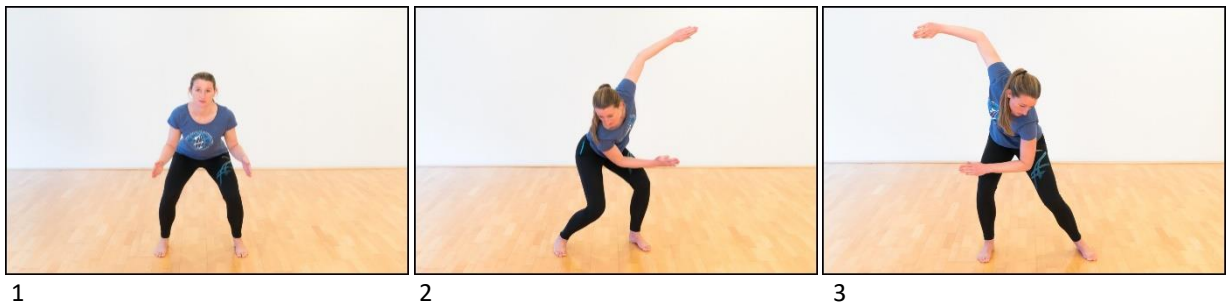
These and many more characteristics together with knowledge of surf specific injuries, form the base of this training program.

While following the injury prevention program, focus on your technique first before you progress to heavier exercises. Make sure to start with all exercises of level 1, following by the exercises of level 2 and ending with the exercises of level 3. You can put extra emphasise at those exercises that help you work on the weaker characteristics of your body, for instance mobility for some surfers, strength for others.

## Surfing Injury Prevention Program Level 1

### 1. Rotational squats

- Purpose: to enhance mobility in the whole chain of movement
- Start in squat stance (picture 1)
- Swing your left arm up and rotate your upper body (picture 2)
- Swing to the other side, right arm up goes up, upper body rotates to the right (picture 3)
- Perform with a controlled swing
- Keep an active back leg (the side of the lowered arm) and control the knee
- 2x10 repetitions



### 2. Deep squat

- Purpose: to enhance hip mobility
- Place feet a little wider than hip distance, straighten your spine
- Lower your pelvis down as far as possible
- Keep the heels on the ground
- If necessary, hold on to something in front of you or put something underneath your heels
- Enjoy the view and breathe easily
- 30-60 seconds



### 3. Surfers lunge

- Purpose: to stretch the hip and leg and enhance spinal rotation
- From the deep squat position, straighten your right leg
- Point the toes up
- Lift the right arm up and look to the sky
- Use the left arm for balance
- Breathe easily
- 5 repetitions per side



### 4. Walking diagonal lunge

- Purpose: to stretch the hips dynamically and to warm-up the spine and fascia
- Put both your arms in the air, the shoulders stay parallel to the hips
- Step forward and a little to the side
- Drop your back knee
- Walk forward with the arms raised
- 10-20 meters , 4 repetitions



## 5. Spine routine

- Purpose: to improve mobility of the spine in all directions
- Sit down on your knees with the feet flexed, spine in neutral position (picture 1)
- Move your arms up and look to the sky (picture 1)
- Breathe deeply in and out in this position
- Straighten the spine. Grab your left wrist with your right hand and bend sideways to the right (picture 2)
- Breathe deeply in and out in this position
- Reverse the exercise to the left (picture 3)
- Straighten up and place your right hand behind you (picture 4)
- Left hand on the right thigh (picture 4)
- Breathe deeply in and out in this position
- Reverse the exercise (picture 5)
- Bend forward touching the ground as far away as you can reach (picture 6)
- Breathe deeply in and out in this position
- Place your hands behind you, fingers pointing backwards (picture 7)
- Breathe deeply in and out in this position
- 3 repetitions



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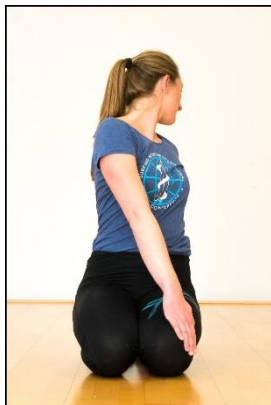
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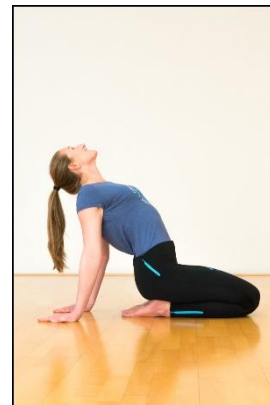
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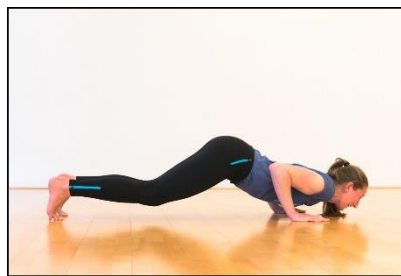
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## 6. Dynamic up- and downward dog

- Purpose: to enhance mobility and activate core stability
- Sit on hands and knees, with your hands slightly in front of your shoulders
- Extend your knees, remain your back straight: downward facing dog (picture 1)
- Your knees can be flexed if you lack mobility
- Lower your body down (picture 2)
- If it is too hard, you can put your knees down first
- Straighten the elbows, extend you back and look up (picture 3)
- Move back to downward facing dog by pushing your hips back and up again
- 5 repetitions



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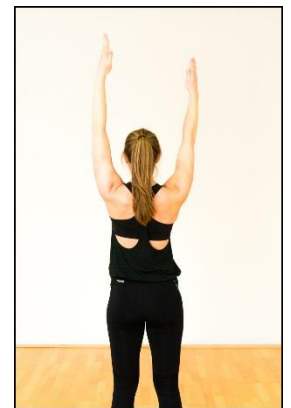
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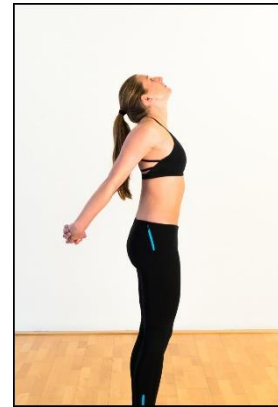
## 7. Asymmetric arm swing

- Purpose: to warm up the shoulders
- Stand up straight with both arms in the air
- Keep your neck in a neutral position, keep looking forward
- Your right arm circles forward while your left arm circles backwards at the same time
- Reverse the exercise, right arm backwards, left arm forwards
- 10 repetitions



## 8. Fish pose

- Purpose: to open the chest and stretch the upper back
- Stand up straight
- Activate your core muscles
- Fold your hands behind your back
- Extend your elbows
- Actively pull your shoulder blades towards each other, the shoulderblades slide over the lower part of your upperback
- Open and lift your chest, while you try not to arch your lowerback
- Hold contraction for 5 seconds, 5 repetitions



## 9. Penguin

- Purpose: to warm up the shoulders and tone the external rotators of the shoulders
- Stand up straight
- Keep your elbows next to your side, in a 90-degree angle (picture 1)
- Turn your forearms outwards but keep the elbows close to you (picture 2)
- Pull the shoulder blades towards each other and make a 'proud chest' by contracting the external rotators
- In end position, hold contraction for 2 seconds (picture 2)
- 10 repetitions



1



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## 10. Thumbs up

- Purpose: to warm up and mobilize the neck and upper spine
- Stand up straight
- Raise your arms sideways up to shoulder height
- Stick your thumbs out, one pointing up while the other is pointing down
- Rotate your head so that you are facing the thumb pointing up
- Watch the other side and switch thumbs. That way you're always looking to the thumb that's pointing up.
- 10 repetitions



## 11. Dynamic rotation cervical spine

- Purpose: to stretch and warm up the neck
- Stand up straight
- Move your chin towards your chest
- Then move your right ear towards your right shoulder, until you feel the stretch
- Make sure your left shoulder does not move upwards
- Change side while facing down in the middle of the movement
- Slowly move your left ear towards your left shoulder, keeping your right shoulder down
- Hold this stretch for 5 seconds, 5 repetitions each side

