

# **WSF Freediver**

## **- Confined Water Training**



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## INTRODUCTION

It's now time for you to start your confined water training. This is the most important part of your development and will set you up for success in the following sections of the course. Your instructor will guide you through all your skills with a dive briefing explaining the skills first, then demonstrating them. Your instructor will be helping you with the skills until you are comfortable with each of them.

This is a development session for you so there is no real pass or fail. It is a series of sessions to help you gain the basic freediving skills required to go further.

Remember that your mental attitude is more important than anything else. Freediving is a very personal sport and you will need to understand the psychology surrounding the skills. The only barrier is your own fears and misconceptions and these will have an impact on your personal development. Fortunately, you will have a highly trained WSF Freediving Instructor there to help. Your instructor will be able to constructively talk you through each skill and demonstrate so you will understand the potential that lies ahead of you.

So put your imagination 'On Hold' and start a personal journey of discovery with your first freediving experiences.



## FREEDIVING EQUIPMENT

This is an important part of training. If you are uncomfortable freediving with your equipment, you will not be able to concentrate and learning can be difficult.

Hire/rental equipment can be difficult as there will be times when it just does not fit properly. To hire/rent is okay to try out equipment but, at the end of the day, owning your own freediving equipment that fits correctly is the only answer.

Your instructor will run through the following equipment with you:

- Exposure suit – correct type and thickness for freediving. Depending upon the water temperature in your area, you will require a wetsuit that protects you from the cold and the environment. Generally, we will use a 2 piece hooded suit of around 3-5mm
- Hood – you lose a large amount of heat through the head. It is important in cold areas to have an exposure suit that has an attached hood, or a separate one if not attached.
- Gloves – can be great in cold water and also to help protect from marine life, cuts and scrapes.
- Masks – need to be low volume and have a nose pocket to equalise with.
- Snorkels – use a simple, non purge, flexible “J” shaped snorkel for streamlining and ease of breathing.
- Fins – these need to be suitable freediving style long fins to get the most benefit from your training. Scuba and snorkelling fins are not really suitable and will not have the propulsion and oxygen saving features we need for freediving.
- Weights – your instructor will show you how to manage the weight required
- Instruments – it is recommended to have a freediving watch/computer that can show you your maximum depth, dive time, depth alarms and surface time.



## How will the session run?

Your instructor will determine the length of your sessions and how many you need to do. Generally at this level you may only need 1 day at the pool broken into 2 sessions. The length of these will depend upon your progress and that of others on your course.

This will be a relaxed event with plenty of time to practice the techniques you will learn. More practice means you will be better served in the Open Water sessions that are to come. This is your chance to feel the effects of freediving for the first time and you should ask your instructor if you have any questions or reservations.

Remember do not practice freediving alone! You need a safety person at all times for support. This should be another suitably qualified freediver.

## Freediving skills in this session

You will learn the importance of stretching and preparation, and the core skills and techniques used when freediving. Your instructor will run a stretching session with the freediving group.

Some of the skills practiced in this session will be:

- The buddy system
- Dynamic apnea swimming and finning techniques
- Duck dive techniques
- Streamlining/body position
- Equalisation
- Rescue techniques and other safety skills

## SWIM TEST

You will need to complete a swimming test before you can progress to the Open Water section. This will consist of a swim in your own time of 200 metres/656 ft. The swim will be done with no swimming aids and no exposure suit, fins or mask.



## WSF FREEDIVER SESSION 1 AND 2

### FREEDIVING GOLDEN RULE

Always train for freediving with a buddy

### FREEDIVING PREPARATION

#### 1. Freediving equipment preparation and checks with your buddy.

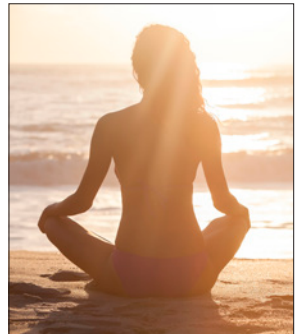
- Your Instructor will explain how to prepare your equipment for first use. First make sure all equipment is ready and available. If we need to travel to the pool then a check should be done before leaving the Freedive Centre.
- Exposure suit – this will most likely be an open cell, neoprene suit, meaning the inside will be open neoprene face with no liner. This type of suit will stick to your skin and be extremely hard to put on dry. It is best to use some mild soap (hair shampoo will work) to lubricate the inside of the suit. Use water and soap to wet the inside of the suit and it will slip on easily. This will also stop the suit getting damaged from pulling and tearing.
- Mask – your freediving mask will need to be defogged for first use. Clean a new mask with non-gel toothpaste. Before every dive defog your mask with a commercial defog liquid or rub saliva on the inside of the lens and rinse out. Adjust the strap for a comfortable fit
- Snorkel – your snorkel needs to be attached to the left side of your head near your ear. It should point towards the surface and protrude into the air when you are horizontal or vertical in the water. Adjust the positioning to achieve this with your instructor's help.
- Fins – you should have the correct size and type of freediving fins. Your instructor will show you how to fit them and how to safely move around in the water.



- Weights – you will need to weight yourself correctly for each freedive. Your instructor will go through this process, adding just enough weight for you to be neutrally buoyant for pool sessions and positively buoyant on the surface for open water sessions. You will learn how to position the weights low on your hips so they don't move during head down dives. Adjust weight position so they are even on each side of the weight belt and make sure to wear the belt in such a way that does not restrict breathing.
- Computer – your computer can be worn on either arm and must be securely fastened. You also need to make sure it is in “freediving mode” and turned on.

## 2. Relaxation and stretching techniques

- This is an important part of freediving. You need to be relaxed and stress free to enjoy the benefits of freediving. Your instructor will have a stretching routine for you to learn that will be used in all your freediving sessions.
- Stretching will prepare the muscles and body for best performance and help minimise any cramps occurring in muscles not used to freediving.



## 3. Listen and Participate in the dive briefings – your instructor will outline all the skills you will perform, explaining what is expected from you and where you should prepare your equipment. All safety aspects will be in the brief so listen up and learn how this is done.

## 4. Freedive breathing techniques:

- Relaxation breathing– this is performed before each freedive. You will inhale from the abdomen first, then the chest, followed by exhalation, only allowing air to pass through a partially closed lips/mouth. This is to let the air out slower than the inhalation and is done by either pursing the lips or using the tongue as a partial block. The idea is to let the air come out by itself and not push it out with the diaphragm which should be relaxed. Relaxation breathing may take around 2 minutes.
- Final breaths – these are the last 1-2 breaths before your freedive. These should be larger breaths from the abdomen to the chest. The final breath/breaths should not be forced or rushed. Be sure to remain relaxed as during the relaxation breathing. The last breath will be held for the freedive.



- Post-dive recovery breathing is performed by taking deep breaths and holding for around 1 second on each inhale before allowing passive exhalation and repeating the process. This allows oxygen to be transferred into your system quickly.

## FREEDIVING SKILLS



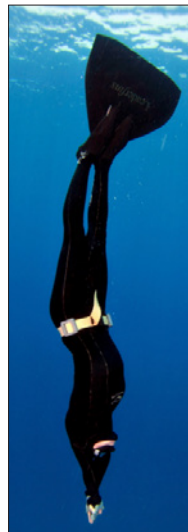
**RAID Note: All underwater and above water skills will be demonstrated by your instructor before you are required to perform the skill. If you do not understand something, ask your instructor to repeat the demonstration.**

### 1. Finning techniques, streamlining and efficiency.

- Flutter kick – this should be done by keeping a straight leg and finning from the hip. If you bend at the knees you will look like you are riding a bicycle and will have decreased efficiency. Your body needs to be straight and streamlined with arms at the sides. Keep a head down position so that you are watching the bottom line or rope – this keeps a streamlined head position. Remember to be relaxed; no tense muscles should be displayed.



- Dolphin kick – this kick requires you to keep both legs together as if your fins were joined as one. Freedivers often use a single fin that looks like a dolphin tail called a monofin. For this kicking style you need to use your torso, hips and legs. Move as though a ripple runs through your body from hips to ankles.
- Very similar to the action a dolphin makes when swimming. Keep your arms to your sides or pointed forward forming an arrow shape, and keep your head down, monitoring the guide line for streamlining.
- With all finning techniques in confined water sessions, correct weighting is important. Your instructor will adjust your weights as you practice to get the optimum buoyancy for this skill.

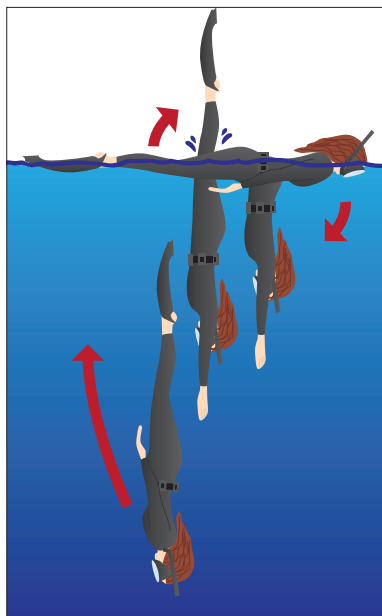




- Your head and arm position is also important to create correct streamlining techniques for optimum efficiency. Remember, better efficiency means less oxygen metabolised by the body and a more comfortable breath hold.
- Arms only technique – the first phase of the no fins technique. This is practiced by using no equipment for propulsion other than your arms which use a breaststroke style movement (where the arms pull from the front to the side and down the body). Using this, we can very effectively find good propulsion. This technique is very useful for many skills when freediving. It can also be used as a safety measure in case of leg cramps at depth, whereby the arms only technique can effectively be used to surface with ease.

## 2. Duck dive correct technique

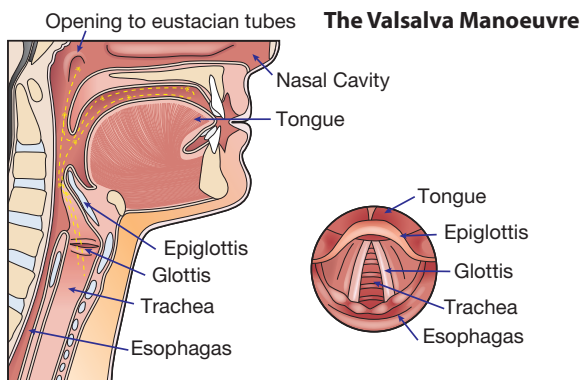
- The duck dive is a very important part of freediving. This will set up your dive, and correct technique will conserve oxygen.
- Always start beside the surface buoy and take at least 2 kicks before you duck dive. This will put you just past the buoy so that you are looking back at the rope as you dive. You will now have the orientation of the rope and can easily monitor your dive.
- After your breathe-up and before you take the 2 kicks, do a pre-equalise and take out your snorkel from the mouth. Bend at the hips and try to have your body go directly towards the bottom as your legs point upwards. The weight of your legs will help push you down. Use one sweep of your arms (arms only technique) to help pull you underwater and make sure to start to equalise.
- Once you start finning try to remember to streamline and equalise.



## 3. Equalisation techniques

- There are numerous equalisation techniques you can use but to start with you will use what is easiest for you. This will most likely be the “Valsalva Manoeuvre” which is simply pinching your nose to block the airway and blowing gently into a closed mouth. Just like popping your ears on an aircraft.

- This should be done at the surface just before your duck dive, and all the way to your planned depth every half a meter or so. You will get better at this once you understand how your ears are working



- Never try to force your ears to pop. You can do damage to yourself if you blow forcefully when trying to equalise. Most times difficulty in equalising comes from not trying early enough. Your instructor can give you some tips on this.

#### 4. Dynamic apnea (DYN no fins) using flutter kick for 30m/99ft

- For this skill you will be putting numerous freediving skills together. Use the flutter kick you learnt earlier as well as the streamlining. You will perform a breathe-up with correct final breaths. Once ready, snorkel out, equalise and swim with the flutter kick for 30m/99ft minimum.
- Your instructor will show you the correct turning technique for a short pool. This will help conserve energy and oxygen during the turns.

#### 5. Dynamic apnea without fins (DNF) correct technique

- This skill requires you to use a frog style kick while your arms use a freediving sweep to propel you along the pool.
- Breathe-up and pre-dive breaths are the same, as is equalising and snorkel out.
- Head position is the same as dynamic swimming with fins.
- Again, your instructor will demonstrate and help with technique.

#### 6. Buddy system procedures

- All freediving requires correct use of the buddy system. This helps us stay safe and enjoy our freediving with the knowledge that there is always a support person ready to help you.
- You will use a system called “one-up one-down”. This means while one freediver is underwater, the other is on the surface watching so if there is any distress there is someone to help.

- Never dive at the same time. If one of you gets into trouble there may be no-one to help which is a dangerous situation.
7. Correct surface procedures including recovery breaths
    - Once you have finished your dive and reach the surface you need to make sure you are aware of the surface float/pool edge which is used for your recovery
    - Use the float/pool edge to support you at the surface. Once on the surface hold the surface float/pool edge and start your recovery breathing.
    - Recovery breaths involve taking a deep breath and holding for 1 or 2 seconds. This allows fast oxygenation and helps reduce the chance of blackout or Hypoxic Fit.
    - Take a number of recovery breaths until you feel recovered and give the OK sign to your Instructor or buddy. This lets them know you are thinking rationally and are relaxed and recovered.
  8. Swim test:
    - Complete a swim in your own time of 200 metres/656 ft. The swim will be done with no swimming aids and no exposure suit, fins or mask. Your instructor will be on hand to guide you and help with swimming technique.



## FREEDIVING SAFETY

1. Cramp removal simulation.
  - When you are not used to the long fins used in freediving, there is a chance you will get cramps in the calf muscle or foot.
  - To relieve these, your buddy can help by massaging your calf muscle while gently pushing under your fin to stretch the calf muscle out. You can also do this yourself by reaching down for your fin and pulling up to stretch the calf muscle.
  - Good pre-dive stretching can alleviate cramps in many cases.
2. Tired freediver tow techniques.
  - If a freediving buddy is too tired to swim to the boat or shore you may need to help. There are a number of methods to use including armpit push, fin push and wrist tow. Your instructor will demonstrate the best methods.

### 3. Shallow Water Blackout (SWB/BO) simulation.

- By using correct breathing techniques and making sure you do not push your limits as you learn to freedive, you will minimise the chance of SWB/BO.
- Your instructor will help simulate the response for someone who has SWB.



- Make sure you get the person to the surface by holding the mouth shut and supporting the head. You can swim up while keeping your body close to theirs and pushing to the surface.
- Once on the surface, position yourself to support the head of the freediver face up on the surface. Remove the mask and ask them to breathe. You can blow air gently on the side of their face and say “breathe, breathe” while using a slight tapping motion with your hand/fingers to initiate a response.
- If their weight is substantial and is affecting your rescue, you can remove their weight belt to create positive buoyancy.
- If there is no response, you need to perform rescue breathing while you remove the person from the water and start CPR.

### 4. Hypoxic Fit simulation.

- In this case the person has not completely blacked out but has no co-ordination in the body. This can also be a dangerous situation and must be dealt with properly
- You will need to support the person as in the SWB/BO scenario, and again prompt them to breathe until they recover.
- Any person who suffers a SWB/BO or Hypoxic Fit should not freedive for the rest of the day.

### 5. Rescue techniques including: Rescue, Response, Revive

- As per the SWB/BO scenario you will proceed through the rescue drill exactly the same.
- Rescue: as per SWB/BO/Hypoxic Fit - bring the person to the surface, support on the surface, support the head and protect the airway.
- Response: Remove facial equipment, blow air across their face, tap face with fingers/hand, and prompt a response by using their name e.g.: “Breathe, John!”

- Revive: When there is no response from the freediver, use rescue breaths to deliver oxygen to initiate a breathing response and to unblock laryngeal spasm. If necessary, remove from water and start CPR.

## FREEDIVING COMPLETION

1. Exit the water in the manner discussed in the briefing.
2. Post-dive equipment care.

Rinse all your equipment with fresh water after each day following a pool or salt water encounter. Your instructor will demonstrate:

- Rinsing the dive computer with fresh water and place in a safe area.
  - Allow equipment to dry thoroughly but not in direct sunlight.
  - Review the readings of the Dive Computer
3. Listen to de-brief and participate. Instructor de-briefing:
    - Your instructor will de-brief you on how you performed all the skills and give comments about how to improve any particular points.
  4. Log the dives online at the end of the session.

You and your instructor will log the training online under the appropriate section on the RAID WSF website.

### And now for the open water...



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