

# **WSF Advanced Freediver**

## **- Confined Water Training**



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## INTRODUCTION

Now you are beginning another chapter in your freediving development. You are about to learn some advanced freediving skills that will further help with your comfort level in the water. These skills build on the basics learnt in the WSF Freediver course and take you to the next level of skill, enjoyment and comfort.

As previously mentioned, your mental attitude is more important than anything else. You will now understand the limitations of your body and how you can mentally prepare yourself. Again, the only barrier to development is yourself. Your WSF freediving instructor will be there to guide you on this path and we know you will start to extend your skills and comfort as a freediver. This is where you really start to enjoy the sport of freediving

Get ready to have some fun!



## FREEDIVING EQUIPMENT

You should by now have your own equipment. This is essential to gaining the most out of your freediving. Below is a review of equipment from your WSF Freediver course.

Again, your instructor can advise you if there are pieces of equipment you still need:

- 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 2-5mm thickness.
- 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 you should have 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
- 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 provide the propulsion or 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 THE SESSION WILL 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 in the pool, broken into 2 sessions. The length of these will depend on 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 develop your advanced freediving skills and is an important session for you. You should ask your instructor if you have any questions about any of the skills you learn.

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

## FREEDIVING SKILLS IN THIS SESSION

You will learn the importance of stretching and the techniques used. Your instructor will most likely run a stretching session with the diving group.

Some of the skills practiced in this session will be:

- Static apnea
- Finning and turning techniques
- Dynamic apnea swimming and finning techniques
- Dynamic apnea without fins (DYN No Fins)
- 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 400 metres/435 yards. The swim will be done with no swimming aids and no exposure suit, fins or mask.



## WSF ADVANCED 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.
  - 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 environmentally friendly 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 – 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.
- Weights – you will need to weight yourself correctly for each freedive. Adjust weight position so they are even on each side of the weight belt and make sure to don the belt so as to not restrict breathing.
- Computer – your computer can be worn on either arm but 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, body and mind for best performance, and help minimise any cramps occurring in muscles not used to freediving.
- Your WSF Advanced course will introduce you to further stretching skills. Now you will learn thoracic stretching which helps your diaphragm muscles, intercostal muscles and torso become more flexible, allowing greater safe use of your lung volume.
- You will learn how proper stretching can increase your lung vital capacity and reduce your residual volume. This is all important for gaining the most from your freediving by increasing your flexibility.

## 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 partially closed lips. 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. The 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 abdomen to chest, the final breath/s 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:

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

### 1. Static apnea with buddy for 2 minutes 30 seconds minimum.

- This exercise will amaze when you see what can be achieved with correct breathing and relaxation techniques. It is called static apnea because you are not moving and not diving. Only using the surface water at head level.



- Your instructor will demonstrate correct positioning and have you float face down near the pool edge or buoy for support.
- You will perform breathe-up techniques and prepare your final breaths for the static apnea skill.
- Once you start, your instructor or buddy can coach by reassuring you of your time and observing you for distress.
- Your buddy may ask you to give an 'okay' sign to let them know you are still in control. Take your time and try to relax your entire body so that minimal oxygen is being consumed.



- Once you feel that you wish to come up for air, you can rest your hands on the pool edge or buoy in preparation for surfacing. When ready, surface and start your recovery breathing.
- Through the whole process, your buddy will monitor safety and record the time for you.
- Remember, this is where you can learn how your body reacts to apnea which will help in all freediving.

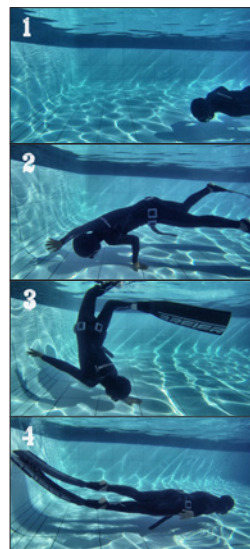
## 2. Finning techniques, streamlining and efficiency.

- Flutter Kick – you will revise your flutter kick with your instructor so that you are getting optimum positioning and efficiency.
- With all finning techniques, 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 successful breath hold.



## 3. Dynamic turning.

- Turning in a pool is very important and, when done correctly, will conserve oxygen and promote efficiency.
- You should visualise the turn at around an arms length from the end of the pool. Place your forward hand on the pool bottom but with your fingers facing backward towards your new intended direction. Your other hand should touch the pool end and help you turn / pivot.
- Your bottom hand is your real turning hand. This one will turn and direct you towards your new direction. At the same time, use your body with your legs together and dolphin kick for the first movement during the turn. Then return to your normal flutter kick style.



Note: In a deep pool where it is impractical to turn with use of the pool bottom, you can perform a different technique, similar in style. This turn is done with the arm stretched out to initiate the turn and is finished by pushing off the wall with the feet/fins.

4. Dynamic apnea (DYN) using flutter kick for 55m/60yards.
  - For this skill you will be putting numerous freediving skills together. Use the flutter kick you learnt earlier as well as streamlining. You will perform a breathe-up with correct final breaths. Once ready, swim with the flutter kick for 55m/60yards minimum.
  - Your Instructor will show you the correct turning technique for a 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, similar to that of breaststroke for swimming.
  - Breathe-up and final breaths are the same, as is equalising and snorkel out.
  - Head position is the same as the 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.
  - Use the “one-up, one-down” system learnt in your first freediver course.
  - 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.
  - Never Freedive Alone.
7. Correct surface procedures including recovery breaths.
  - Always perform recovery breaths after any freediving activity.
  - Recovery breaths involve taking a deep breath and holding for 1 or 2 seconds. This allows oxygen uptake fast and helps reduce the chance of blackout or loss of motor control.



- Take a number of recovery breaths until you feel relaxed and recovered, then give the OK sign to your instructor or buddy. This lets them know you are thinking rationally and are relaxed.
8. Swim test:
- Complete a swim in your own time of 400 metres/435 yards. 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. Blackout (BO) and Loss of Motor Control (LMC) static simulation.
  - Your instructor or buddy will help simulate the response for someone who has BO or LMC.
  - To initiate response you need to remove the person's face from the water immediately. Remove the mask and ask them to breathe. You can blow gently on the side of their face and say "breathe, breathe". You may also gently tap on the side of their face with your other hand.
  - Any person with either BO or LMC should not dive for the rest of the day.
2. Blackout (BO) and Loss of Motor Control (LMC) dynamic simulation.
  - Your Instructor or buddy will help simulate the response for someone who has BO or LMC.
  - While your buddy is performing dynamic apnea swims you can swim along beside them using your fins, mask and snorkel. You are observing their behaviour to make sure they are still moving and in control. Watch their positioning for signs they are becoming hypoxic.
  - If you see that your buddy suddenly stops or seems to lose motor control then you need to act fast. You should respond just like you learnt in the SWB/BO scenarios in your first course.
  - Make sure you get the person to the surface by holding the mouth shut and supporting the head.



- Position yourself so as to support the head of the freediver's 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 there is no response you need to give rescue breaths. Remove the person from the water immediately and start CPR.
  - Any person with either BO or LMC should not dive for the rest of the day.
3. 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/LMC - bring the person to the surface, support them on the surface, support the head and protect the airway.
- Response: Remove facial equipment, blow air across face, tap face with fingers/hand. 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, initiate a breathing response and 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.

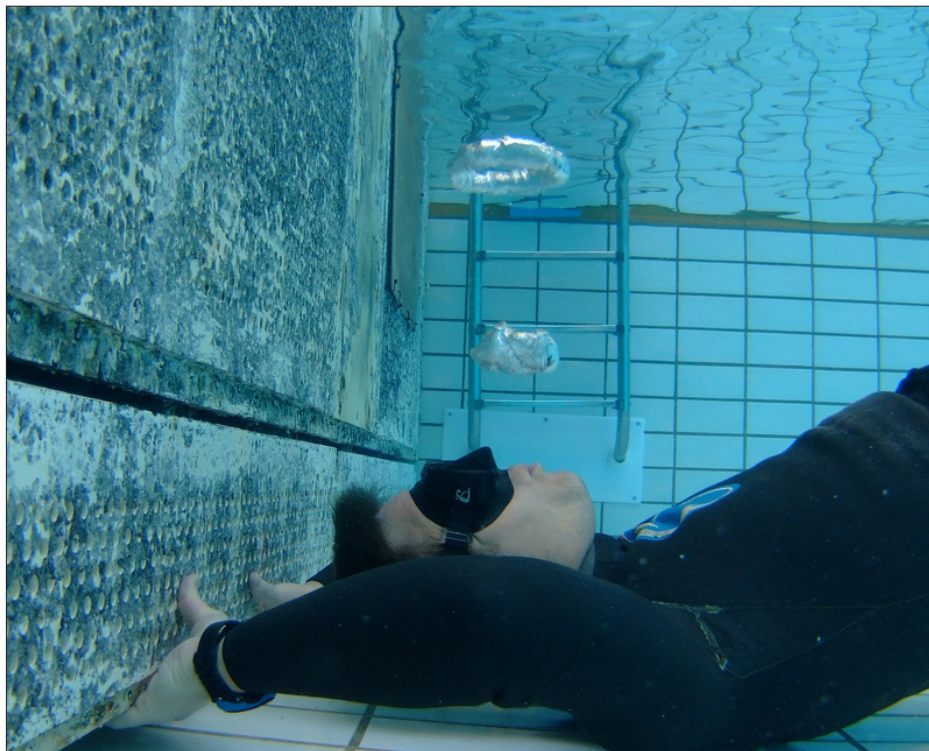
Rinse all your equipment with fresh water after each day following a pool or salt water encounter. Your instructor will demonstrate:

- 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 freedives online at the end of the session.

Your instructor and you will log the training online under the appropriate section on the RAID/WSF website.



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