

Guidance Notes

Safe Operation of Public Diving Facilities

Please note this guide is intended to provide for safe practice in public sessions not for organised club diving in which some of the rules would be modified.

Introduction – why diving?

Diving boards in a public swimming pool can provide a very positive contribution to both the use of a pool and to its financial performance. Well maintained and well managed diving facilities can provide a safe and enjoyable addition to a pool, providing facilities that attract a number of user groups who would not otherwise use a swimming pool. These groups include many of the people, especially youths, who are difficult to get into sport or swimming pools in particular.

However, the safe operation of diving facilities normally requires a more active form of management compared to the normally rather passive approach used in swimming areas.

It is important to actively manage these safety aspects of pool use, but, not to over manage and stifle the utilisation of the facility. Diving gives people an opportunity to try new things and scare themselves in a safe, managed environment and is instrumental in helping people build self confidence. Management should allow a degree of freedom in use but be very strict on the enforcement of purely safety oriented rules.

General

There are a few misconceptions about diving: it looks scary, it looks dangerous and exciting and this perception is often translated into fact, and there is a major misunderstanding of the difference between hurt and injury. Any activity that involved dropping from height into water obviously gives the opportunity for people to hurt themselves, and people in diving may be somersaulting or twisting as they go, but that hurt does not necessarily mean injury. The pool is a fairly safe environment, and even a bad landing in the water is unlikely, from a board 5 metre or lower, to cause anything more than a lot of pain and maybe some bruising. It is not recommended that the public are allowed free use of boards higher than 5 metre.

In this somersaults and twists are no more dangerous than any other dive or jump. A user hitting the water badly will certainly *hurt* themselves whether they are doing a somersault or a forward jump. In addition, allowing some freedom and movements like somersaults will make it much easier to stop users from performing some of the more extreme antics. It is these extreme antics, in an uncontrolled or badly managed diving area where diving can be a very dangerous activity, with the potential for severe, even life threatening injury or of causing major disabilities.

The issues

Injury in diving is likely only if you either;

- 1) Hit Someone (in the water)
- 2) Hit Something (either the pool side, the diving board or the pool bottom)

Taking '1' first, hitting someone in the water.

Clearing the 'Danger' area.

This is a real issue of pool management and probably the most important of all. The biggest danger lies in people swimming across the diving area, within the danger area of the diving boards. The attached diagram (fig 1) shows the layout of a fairly typical diving facility, with the main danger areas of the boards shown as elliptical areas. The aim is obviously to get all users out of the danger areas as soon as possible, without allowing them to stray into the danger area of another board.

Swimming across from one board in front of another is the greatest danger in a diving area. The best practice is to enable the users to swim out the quickest and safest way. For a board in the middle of a group, such as the 3 metre board shown here, that is to go back under the board they have just used, or straight ahead to the end of the diving area and then exit the water.

Of the two directions, for most users the route going under the board would be the quickest and safest, as, once below the 3m or 5m boards they are out of

harms way. This of course is not true of the 1 metre board as it could possibly strike them if they swam below its end. Most 1 metre boards are however placed on the outside of this formation and the route out is easy to see. It is a good plan, where possible, to have steps available at the rear corners of a diving area, behind the ends of the diving boards. It would also be helpful, if it were possible, to have an exit point below the junction of the 3 metre and 5 metre boards. This would allow users to exit directly when they reach the safe area under the board. For other users the option is to swim forward to the end of the diving area, but as the steps to exit the pool will likely be at either corner, it possible that users will swim at an angle across to the steps thus straying into another danger area. In addition to this, the danger area of a board extends far further forward than back and it thus takes longer to swim out of the way. (See page 7)

Once users are behind the front edge of a diving board they can be taken as being out of the danger area, and the pool then viewed as being clear for the next user.

Whether pools take this a stage further by actively managing users while they are on the board is very much dependant on local conditions and what users are used to, but in some pools it is advised that the users are called to 'go' by the supervising staff once the danger area for that board is clear. In the case of the pool layout in Figure 1, the 1 metre and 5 metre boards could be called simultaneously, the 3 metre would be called independently.

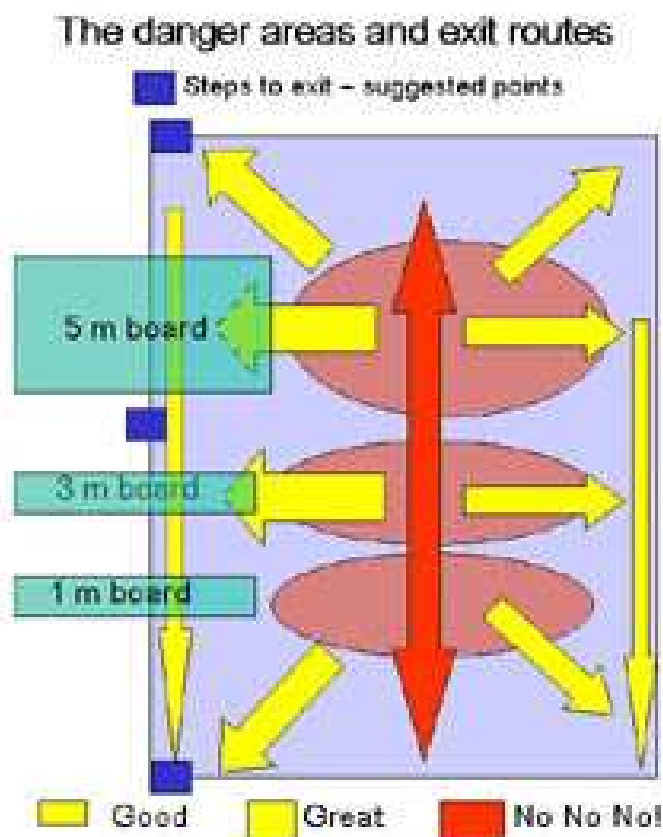


Fig 1. Ways to swim out.

This gives additional safe separation between the boards should users inadvertently travel sideways as they go.

In some pools where a safe system using all boards is in operation, calling like this would not be needed.

Users need to exit the pool immediately and should not be allowed to linger in the water. Parents should not be allowed to wait in the water to catch their children: this should not be needed anyway as only strong swimmers should be allowed into the diving area.

2. Hitting Something

The Side

Users should always be stopped from jumping sideways from the diving boards, either towards the side or across in front of other diving boards. For the same reason users should not be allowed to hang or swing from under the diving boards.

To avoid people hitting the far side, high speed running from the highboard should not be allowed. Additionally for similar reasons more than 2 bounces should not be allowed on a springboard. Modern high flexibility springboards can be difficult to control with multiple bounces and could potentially throw users either sideways toward the pool wall or into the path of another board, or a great distance along the pool. It is suggested that signage on the diving stage warns against running or bouncing on the diving boards as appropriate.

The greater danger of hitting the side is not from the diving boards themselves, but when performing some dives from the poolside. It is recommended that users are permitted to perform only forward dives from poolside unless in part of a controlled diving lesson. It is very easy to circle under water on a back dive and hit the pool wall with the head. The diving boards, being much further out from the poolside do not have this problem.

The Bottom

Pools that meet FINA depth for competitive diving boards should have no problems with this. Pools that have low level (below 1 metre), non-standard solid diving stages in restricted depths should ensure that there is adequate signage warning of the shallow water and advising 'flat dives only'. Refer to ISRM Diving and Jumping in Pools and Open Water Areas.

The Diving Board

Divers who appear too close (.5 metre/18" or less) should be warned and asked to ensure they land further away from the end of the diving board. If they persist in landing too close they should be told to stop as they are unsafe.

Going backwards from a diving board is no more dangerous than going forward when in an area that is controlled. However it is good practice that, where users are seen to be going backwards from a board, that they are always advised to make sure that they jump back at least 1 metre from the end of the board.

Again staff must always warn users who are too close to the end of the board, as the users may well not be aware of how close they are. It is suggested that signage advising users to land a safe distance out is in place by each board.

Staffing

The staffing of a diving area is very important to the safe running of a diving facility and a member of staff should always manage the diving area when it is open. This person's sole responsibility should be the management of the diving area and the safety of the users in it. They should, at that time, have no other responsibilities which would distract them from this task.

Pool management should ensure that staff entrusted with the running of the diving area have, in addition to the normal NPL qualification, a good understanding of the safety issues present in a diving area, know the rules in force there and understand the reasons for those rules. It is vital that the enforcement of rules in the diving area is consistent at all time as variation in the application of rules causes confusion and can be dangerous.

Staff on diving area duty should be positioned so that they can be seen by the users, but where they can also control by voice the use of the boards. In addition, they need to be able to see the distance users are landing away from the end of the boards and to call when the water is clear. This requires a clear view across the pool. It also requires an ability to see to the bottom of the pool to check if there is anyone under the surface. For these reasons, the best place to position staff is to one side, approximately level with the front of the springboard. This position puts them close to the users while they are on the board, with a clear view across the pool and they can easily see if the area is clear. Diving area rules should be positioned so that users and staff can see them.

Staff should be able to explain to any user who has transgressed, what they have done wrong, and the safety reasons behind the rules they have broken. Staff should also ensure that they stop users from wearing swimming goggles when using diving boards as eye injury could result if they slip due to water pressure.

Maintenance

It is important that all facilities are properly maintained and serviced. It is recommended that cleaning and maintenance is undertaken to the manufacturer's recommendations and that installations are regularly checked. It is suggested that an annual service of the boards be undertaken by specialist installers. This would incur a small cost, but would ensure that all boards meet with safety standards. All aspects of a diving installation should be inspected regularly for faults such as loose bolts, slippery surfaces, abnormal noises or unsafe fittings. These faults should be reported and fixed as soon as possible and if necessary the facility taken out of use until it is safe.

Conclusion

A well managed and maintained diving facility can add a great deal of attraction to your pool, helping local authorities meet targets for inclusive sport, getting new users into your facility and adding additional substantial revenue streams.

It must be emphasised that the approach to diving does need to be different to that for public swimming. It does require greater concentration from the staff and a more active form of facility management.

Recommendations – Pool Management and Staff

- 1 Allow users to have a degree of freedom and experiment but enforce a strict safety code at all times.
- 2 Stop users from swimming across in front of any diving board for any reason while the diving area is in use.
- 3 Where possible encourage users to swim directly under the board they have just left (3 metre and 5 metre boards only) and have steps at the back corners of the diving area and, if possible, one placed in the central area at the space between the 3 metre and 5 metre
- 4 Prevent users from jumping across from a board, either towards the side or in front of another diving board.
- 5 Allow users to jump or dive from any board (up to 5 metre). Do not prevent jumps as it pushes people to try dives when they are not ready to do so and prevents users developing the confidence to dive in the future.
- 6 Staff should always warn users who are going backwards to ensure they are far enough away from the diving board for safety.
- 7 If any users are seen to be too close to the diving board (.5 metre or 18" minimum, then the staff should always warn them that they are too close and tell them to move further away from the board. If they persist they should be told to stop.
- 8 A member of staff should always have responsibility for the diving area while it is open. They should not have additional responsibilities or distractions at that time.
- 9 Staff on diving area duty must have a clear understanding of safe practice in the diving area and must enforce the rules consistently.
- 10 Staff should stop users from wearing goggles while on the diving boards.
- 11 All users of the diving area must be strong swimmers capable of at least 25 metres.
- 12 Users must be made to clear the water quickly once they have dived.
- 13 High speed running take offs should not be allowed.
- 14 No more than 2 bounces should be allowed on springboards.
- 15 Only 1 person at a time should be on a springboard.
- 16 No multiple diving from the platform: only 1 diver at a time can go off.
- 17 A limit should be placed on the number of people allowed on a diving platform: 2 would be sensible number allowing a user who is unsure to step back and allow someone else to go without having to go back down the steps.
- 18 Signs showing simple understandable rules should be in place by all diving facilities.
- 19 All diving boards should be regularly checked for faults and cleaned and maintained according to manufacturer's recommendations.
- 20 Staff should not attempt to teach users or suggest that they try new moves.
- 21 Staff should always warn users who break a rule of what they have done. If they persist they should be excluded from the diving area. If it is a minor transgression or mistake, this may be for a short time as a warning. Users who continually break the rules, abuse the facility or behave in a dangerous or reckless manner should be excluded or barred from entry to the facility for an extended period.

It is vital that these issues are understood and the rules applied fairly and consistently in all cases to ensure a safe enjoyable environment for everyone.

Recommended Users rules – Diving areas

Danger Deep Water – No non or weak swimmers allowed

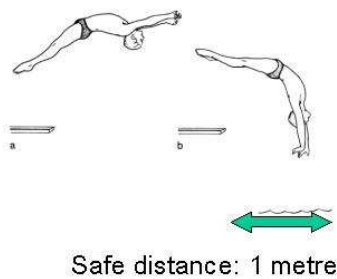
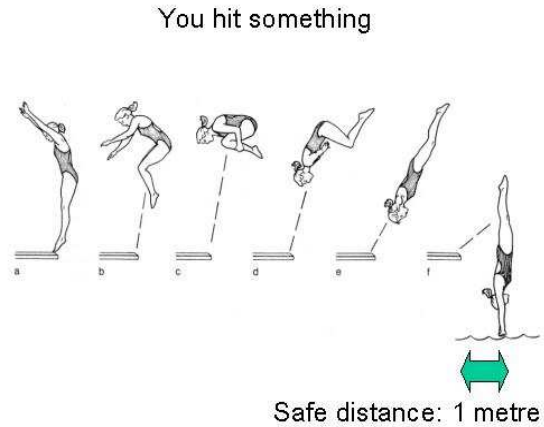
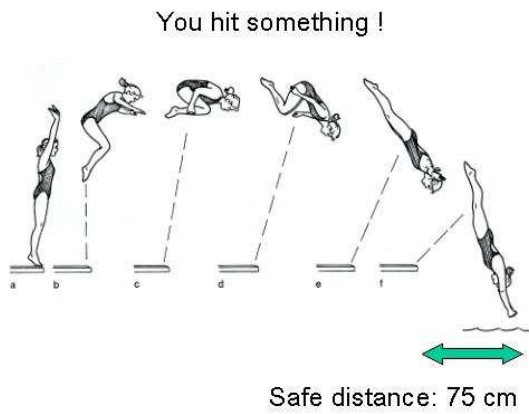
- 1 Users must not jump, dive or swim across in front of another diving board at any time.
- 2 Users must exit the pool immediately.
- 3 Swim back to the side beneath the board you have used or ahead to the end of the diving area. **DO NOT SWIM ACROSS THE POOL TO THE SIDE.**
- 4 Users must not go until the water in front is clear. *

Users must not go until told to by a member of staff.*

- 5 Divers must ensure that they enter the water a safe distance (1 metre) from the end of the board.
- 6 Only 1 person on a springboard at any time.
- 7 Only 2 people on the 3 metre or 5 metre platform at any time.
- 8 Only 1 person to dive or jump at a time.
- 9 No more than 2 bounces on a springboard.
- 10 Running along the board is not allowed.
- 11 No Bombing, Handstands or Hanging from the diving boards.
- 12 No wearing of swimming goggles or glasses.

* this depends upon method of board management.

Safe distance



Safe practices

Hands over the head when diving – no 'pencil dives' - warning only.

Too close ? Advise them to jump farther away, if still too close tell them to stop.

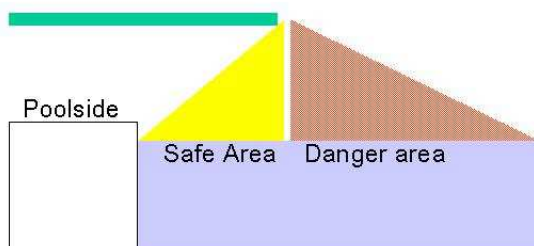
Safe area

Swim out or swim back ?

Safer under the board area unless jumping a long way out

Difficult to dive through the board !

Either option better than swimming across !



The danger areas and exit routes

