

Swim England Guidance

Guidance on the Performance of Tumble Turns

The Swim England Facilities Team are frequently asked what is the minimum depth tumble turns can be performed in?

Guidance on the performance and coaching of Tumble Turns

The performance of tumble turns is a skill that needs to be taught so that they are performed efficiently, effectively and safely.

The guidance documents that apply to competitive swimming in general are:

At a national level:

- "Managing Health and Safety in Swimming Pools", first published in 1988 by the HSE and Sport England.
- ❖ The "FINA Handbook" revised every four years
- The Swim England/ASA Handbook, revised annually
- The Swim England National Plan for the Teaching of Swimming

And at local level:

- Any risk assessments applicable to a specific swimming pool, and
- The "Pool Safe Operating Procedures" that are produced for specific swimming pools as a result of the above risk assessments.

Although tumble turns are used in Free Style/Front Crawl and Back Crawl competitions as the quickest accepted method of effecting a turn in a race there is no specific definition of a tumble turn in FINA Rules or Swim England/ASA Laws. However it can simply be described as executing a somersault when approaching the end wall to execute a turn so that contact is made with the feet without the hands having to touch the wall; because the term tumble turn is not mentioned by FINA and Swim England it is no surprise that the term is not found in any of the above guidance documents.

Any risk assessments applicable to a specific swimming pool

It is a requirement under the Management of Health and Safety Regulations 1999 for every swimming pool operator to undertake a written risk assessment identifying hazards, quantifying their risk and managing the safety process. Although the number and frequency of tumble turn accidents are statistically extremely unlikely the potential for a serious injury cannot be ignored.

The obvious risks are:

- Swimming into the turn wall at speed with a mistimed tumble turn
- Executing the tumble turn too late and hitting the turn wall with part of the leg rather than the balls of the feet

 Hitting the pool floor if the tumble turn is executed poorly and/or if the pool is too shallow.

Pool Safe Operating Procedures (PSOP)

The Management of Health and Safety Regulations 1999 requires that organisations compile suitable operating procedures incorporating appropriate emergency action plans.

Despite having copious national guidelines individual swimming pool operators are at liberty within the framework of their risk assessment conclusions to completely ignore them and introduce their own rules. They may have good reason to do so given the unique configuration of their particular pool? The PSOP as it is referred to in swimming pools will inevitably be determined by the swimming pool manager's attitude towards risk.

Guidelines that impinge on the risk assessment of tumble turns

There are guidelines on the depth of water suitable for competitive dives, which are an implied indicator of what is suitable for tumble turns. The competitive start awards seek to ensure that competitors can execute a competitive dive into a water depth of a minimum of 0.9-metres. However the analogy is not complete as the dive requires a shallow entry of an extended body where the height of the diver is not particularly relevant. The tumble turn requires the swimmer to compress the body into a somersault shape and the effectiveness of this position in relation to water depth is determined by the height and suppleness of the swimmer. It follows that the taller the swimmer the more difficult it is to execute a tumble turn in shallow water.

Adult elite swimmers will find it harder to execute a tumble turn in 0.9-metres of water depth, whereas young children between approximately 8 years and 12 years will find they have much more room for manoeuvre in 0.9-metres of water even though their skill is less.

So although there is some general guidance that indicates that tumble turns are generally performed (and learned) in 0.9-metres of water and above, a risk assessment can clearly decide that younger children can learn to perform tumble turns in lesser depths; this is comparable with children learning to do somersaults and other water skills in equivalent lesser depths down to 0.75-metres in learner pools. Conversely older Masters Swimmers returning to swimming or starting to swim regularly may require greater depths than 0.9-metres to safely learn to tumble turn.

Finally tumble turns should always be taught off a raised end rather than a deck level pool edge to minimise the risk of 'over swimming' the end, or miscalculating where the end of the pool is.

