

Swim England Guidance

Swimming Pool Temperatures

The Swim England Facilities Team are frequently asked what temperature the pool water should be; what is too hot, what is too cold?

Swimming Pool Temperatures

The temperature of swimming pool water is frequently an issue with swimmers and equally the temperature and atmosphere in the pool hall is an issue for swimming teachers, coaches and lifeguards.

Unfortunately there is no common ground as the complaints range from being too cold to too hot and it is clear that every swimmers preference cannot be accommodated at the same time.

Pool Managers have a general perception that is supported by empirical evidence that the warmer the pool water the more swimmers wish to use the facility. Hence over many years the pool water temperature has tended to creep upwards.

Public demand aside there are very good reasons for controlling the pool and air temperatures in a pool hall to within a range of temperatures that provides comfortable bathing without causing undue risk to the swimmers.

Obviously the temperature range that the human body can withstand is very wide, which is why individual preferences can vary so much; but there is certainly a ceiling on pool water temperature to prevent the proliferation of bacteria as micro-organisms multiply faster – up to twice as fast for a rise of 10°C, which means that the filters are increasingly likely to be colonised. Additionally the warmer the pool water the less effective the chlorine based disinfectants are.

For these reasons the industry has attempted to self-regulate and the Pool Water Technical Advisory Group (PWTAG) supported by its member organisations including the Amateur Swimming Association publish a guideline of recommended maximum pool water temperatures for specific swimming activities.

Recommended maximum pool water temperature

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| Competitive swimming and diving, fitness swimming and training | 28°C |
| Recreational, adult teaching, conventional main pools | 29°C |
| Leisure Pools | 30°C |
| Children's swimming lessons, school swimming lessons | 31°C |
| Babies, young children, disabled | 32°C |
| Hydrotherapy Pools | 35°C |
| Spa pools and Jacuzzis | 40°C |

Although these are maximum temperatures pool managers tend to use them as the norm, which is perhaps unfortunate as it is not the pool temperatures alone that provide a comfortable bathing experience.

In addition to the guidance on pool temperature it is emphasised that the pool hall air temperature needs to be either the same as the pool water or 1°C above that of the pool water temperature and air temperatures over 30°C should be avoided. This is for two reasons.

1. To ensure that there is no excessive evaporation of the pool water into the atmosphere causing wasted heat loss and an uncomfortable increase in relative humidity.
2. If the pool air is lower than the pool water temperature when a swimmer exits the pool the water on the swimmers skin evaporates into the atmosphere causing a cooling effect on the skin, which makes the swimmer feel cold regardless of high pool water temperatures.

Therefore to achieve a pleasant bather experience it is more important to have a balanced air/water temperature than have really high water temperatures.

Swimming Teachers, Coaches and Lifeguards

Given that the pool air temperature is inevitably going to be above 28°C and possibly as high as 33°C the working conditions on the pool side are going to be uncomfortable even oppressive. Clearly such a temperature range is well outside the norm for workers as identified in health and safety guidance and regulations, and for that reason Swimming Teachers, Coaches and Lifeguards should clearly be considered in that group of workers identified in the Working Time Regulations as requiring more frequent breaks from such a harsh working environment (See FAQ – Swimming teachers and pool breaks).