Labor and birth pools: the water supply considerations

Planning to put a labor and birth pool into a birth center or hospital takes some upfront consideration. Careful planning initially will pay off in the long run. By getting it right first time, you will have facilities that support good and safe practice for women and their babies, as well as your team. This post is part of a series addressing the major issues you need to consider: space; water supply; drainage; and electrical supply. Here, we take a look at water supply. When you're considering your water specifications, the key elements you need to consider are:

Desired maximum filling time for the pool
Maximum water pressure available
Maximum temperature allowed for water flowing out of a faucet in a hospital
No-touch timed mixer valve vs. manual valve
Location of water supply in room or corridor vs. desired location of the pool
Building codes and water regulations

Filling time

This needs to be short enough for the filled pool to be available when it is needed in the care pathway. For this, 20 minutes is ideal, more than 30 minutes can often mean the pool isn't ready in time.

Water pressure

It is rare to have a high enough pressure in the hot water supply to deliver a 20-minute filling time for a 146- gallon (557L) pool through half-inch pipes: a flow rate of 438gph is required at 98F. Three-quarter-inch supply pipes are usually necessary.

Water temperature and mixer valves

Low maximum temperatures for water outlets in hospitals mean that a mixer valve and faucet is a better option than separate faucets. Many hospitals are now moving to no-touch mixer valve controls to reduce cross- infection risk. Some have the additional benefit of being programmable: for example, a single wave of the hand across the panel will run water at 98F for 20 minutes. This improves productivity and reduces wasted water through the overflow. You can also create a program to flush the system on a daily or regular basis.

Location of water supply relative to the desired pool location

This can impact the total build cost of adding a birth pool to a room. In fact, there are many clinical decisions and considerations around room layout that may lead to high plumbing cost. Drain waste connections can have a greater impact and are addressed in a separate post. Remember, you will need to check for applicable building codes and water regulations in your area. For example, in the UK the WRAS regulations require an air gap of 2" (5cm) between the outlet of the faucet and the top of the pool.

Conclusion

This is a concise summary of the factors to consider around water supply for labor and birth pools. Please get in touch if you'd like more information.