

The Decision Matrix



Calculating the costs & benefits of putting in a therapeutic pool. Are **you** ready for the **plunge**?

POOL IDEAS...



Hot dog. Your administrator is finally on board and the new facility is going to include a therapy pool. Or you have finally decided to stop using the pool at the local Y or hotel. Unfortunately, you've been assigned the task of determining how much to budget for the construction and yearly operations of the pool. Gulp.

Getting the ball rolling

The first smart decision you can make is to attend a conference and/or hire a consultant to help you with the project (see sidebar). This is too big a potential money-pit to have a novice making decisions. But that doesn't mean you can't provide some ballpark figures —and look spectacularly helpful in the process — to

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get the ball rolling.

Here are the basic questions you must answer to calculate the costs of building and operating a therapy pool.

Assuming new construction, what would it cost to custom-build a therapeutic pool?

To calculate the total cost of constructing your pool project, you must consider the cost of the pool plus the cost of constructing all the pool's surrounding spaces.

According to Alison Osinski, Ph.D. (Aquatic Consulting Services, San Diego, California), in order to estimate the minimum total square footage needed to support a pool, you must take the total square footage of your pool (for a rectangular pool, multiple length by width) and multiply it times a factor of 4 - 4.5. This will give you the minimum square footage necessary for the pool, decking, locker rooms, pump room, chemical room, etc.

As an example, assume your pool is going to run 24 feet wide by 32 feet long.

24' x 32' = 768 square feet (pool square footage) x 4.5 (Osinski's constant) = 3456 (total square footage necessary for pool and surrounding areas).

In the above situation, most facilities believe that if they set aside 1000 square feet, they will have ample room for the 768 square foot pool. In reality, a pool this size will need almost 1500 square feet just to house the pool and the surrounding deck, and an additional 1500 square feet for the rest of the necessary components.

And these are just the minimums necessary. For instance, in almost all states, the deck surrounding the pool must be a minimum of 4' - 5' wide just to comply with state code.

But building a deck that narrow is almost always a mistake. Osinski recommends an absolute minimum of 8' of decking to allow two people to pass each other comfortably — and many new pools are now going with a 12' minimum of decking on the highly trafficked ends of the pool. In addition to allowing two people to pass back and forth, your deck must be wide enough to allow storage of therapy and rescue equipment, storage of wheelchairs and walkers, and perhaps even some poolside seating.

Mick Nelson (USA Swimming, Colorado Springs, Colorado) has put in two therapeutic pools during his past life as a

private practice owner. He now works as a Design Consultant for USA Swimming. Nelson believes that the key to estimating the cost of constructing a commercial pool depends on the scope of project and the geographic area.

According to Nelson, in the Midwest or South, a pool and its surrounding deck can typically be built for approximately \$125 a square foot. In the West, especially California, it will cost closer to \$150 per square foot and in the Northeast, costs will escalate to more than \$175 per square foot.

Using our example, let's calculate an estimate for building a 24' by 32' foot pool in Minnesota. If we use Nelson's rule-of-thumb estimate, we will have an estimate of what it will cost to put in the pool and surrounding decking, but not the rest of the building.

24' x 32' (pool dimensions) x 2 (the pool decking doubles the square footage needed) x \$125 (Nelson's estimate for Midwest construction) = \$192,000 to build just the pool (the structure holding the water) plus the surrounding deck.

Doug Cook, Design Consultant for Councilman/Hunsaker, agrees that the cost of commercial pool construction depends on the geographic area and the "bells and whistles" of the project. He estimates that the cost of building the pool (including its operating equipment, but not including the deck or surrounding rooms) ranges between \$125-\$175 per square foot.

But what if you want to estimate the cost for the entire pool complex, not just the cost of the pool itself? Cook provides a rule-of-thumb guesstimate to do just that: Take \$200-\$225 and multiply it times the square footage of the entire structure and you will get a reasonable idea of what it will cost to build the pool, deck, locker rooms, pump room, chemical room, hallways and other spaces. Of course, if you plan to put in Mother-of-Pearl tile and have a waterslide dumping into the shallow end, all bets are off.

Using our same example, let's calculate an estimate for building our entire pool complex. If we use Cook's rule-of-thumb estimate, we first need to calculate the total square footage of the pool structure.

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24' x 32' (pool dimensions) x 4.5 (Osinski's constant) = 3456 square feet.

3456 (sq. footage of complex) x \$200/sq. foot (Cook's estimate) = \$691,200 to build the entire pool complex (the pool, the deck, the locker rooms, the pump room, the chemical rooms, the lobby, the hallways, etc.).

So now you have some idea of how to estimate the minimum cost of constructing your therapy pool. But it doesn't matter how much it costs to build if you can't sustain its operations year to year. Pools, especially warm water pools, have additional expenses above and beyond any land-based clinic. And many of these costs are hidden to the casual observer.

For instance, did you know it can cost more to "throw away" waste water than it costs to buy it from your city or municipality? Go into the project informed and you won't get sucker-punched when the gas bill comes due.

What is the best way to estimate what it would cost to annually operate such a pool (e.g. utilities, maintenance, supplies, etc)?

According to Nelson, it is possible to estimate operational costs in the same manner you estimate construction costs: By looking at geography.

In the Midwest, Nelson reports that pool owners should plan to pay approximately \$14 per square foot per year. In the Northeast, it will cost upwards of \$22 a square foot, but warmer climates, such as the Southeast, may be able to sustain a therapy pool for closer to \$10 a square foot.

Using our same Minnesota example, let's calculate the cost of operating our pool complex.



CAN INFANTS LEARN WATER SAFETY?

One organization, **Infant Swimming Resource**, is teaching baby aquatic survival skills and drowning prevention classes to infants **as young as 6 months** old.

Harvey Barnett Ph.D. and his wife JoAnn have developed Infant Swimming Resource (ISR) into a nationally recognized program with a specific mission: prevent childhood drowning through specialized survival training. According to their statistics, since ISR's inception in 1967 there have been more than **1700 aquatic survivals** witnessed and 783 survivals unwitnessed.

How did ISR get started? While back from college working as a lifeguard, Barnett witnessed **the aftermath of a neighbor's infant drowning** in only a few inches of water in their backyard. This event sparked an urge within Harvey to teach every child in his neighborhood how to swim. Parents also started to realize the importance of Barnett's lessons and began setting appointments for him to work with their children.

ISR now offers private, highly specialized, and certified instruction for children at or over 6 months of age in all 50 states. Each ISR instructor seeks to individually educate each child, as well as parents, to respect the water and to still enjoy swimming.

With **more than 450 trained instructors** across the country, the program has now taught 144,634 infants and young children how to survival swim and it claims more than 2 million safe and effective lessons to its credit.

Interested in becoming an instructor? Each instructor completes a 5-week intensive training and certification program, which includes a minimum of 60 hours of supervised in-water training. The training also includes education and testing in subjects such as child psychology, physiology and behavioral science. Once an instructor is certified, they must undergo annual reviews and re-certification to ensure skills and techniques continue to meet ISR standards.

Does this interest you? Would such a pediatric client service model fit in well at your therapeutic pool? Find out more about becoming an instructor in the Infant Swimming technique at **www.careers.infantswim.com**

A toddler slips out of the house and heads for the family swimming pool. The boy falls in the water, and sinks, but something amazing happens next. Instead of drowning, he flips on his back, floats to the top and cries for help. Too good to be true? You decide! Watch the video making the rounds on the Internet at **www.aquatictherapist.com** (type "infant swimming" in search box)

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3456 square feet (total area of proposed pool complex)
x \$14/sq. foot = \$48,384 (budgeted yearly operational expenses).*

*These estimates do not include anything other than pool operations. They do not include your biggest expense (salaries), nor do they include debt reduction, depreciation, or taxes.

But what if you are uncomfortable with the idea of estimating operating expenses on square footage alone and want to see some budgeted numbers? There are several main categories that you will need to consider when estimating the costs of operating a pool. The greatest expenses your pool will incur will be due to the cost of utilities (for example, it costs approximately \$3 to purchase and then dispose of a thousand gallons of water). This is where it pays to pay — hire a consultant early and save money later down the road.

Conclusion

Therapy pools can offer your clinic a competitive advantage in your community. Patients often receive more bang-for-their-buck when working in a warm, nurturing, hands-on, gravity-offsetting environment. But none of that matters if you can't make the numbers crunch, so enter the process with your inner bean-counter on stand-by. Make sure to work with professionals who have constructed a therapy pool before. At the very least, make sure you contract for a few hours of oversight by an aquatic design consultant. And use a resource like www.findapool.com to locate other successful therapy pools which you can emulate.

Disclaimer: The information included in this article is educational in nature and is not intended to substitute for the advice of a qualified professional. Please seek individual counseling when considering the design and construction of a therapeutic pool. ■

Therapeutic Pool Design Resource List

CONSULTANTS:

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Andrea Salzman, MS, PT
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Plymouth, Minnesota
Email: asalzman@aquaticnet.com
Web: www.aquaticnet.com

MANUALS & BOOKS:

How to Successfully Launch an Aquatic Therapy Practice (manual)
To order: info@aquaticnet.com
www.aquaticnet.com/howtolaunch.htm

How to Successfully Launch an Aquatic Therapy Practice (DVD of 3 day seminar)
To order: info@aquaticnet.com
www.aquaticnet.com/textbrochure.htm

Aquatic Therapy Policy and Procedure Manual (manual and CD)
To order: h2obabies@cox.net (Lynette Jamison)

Developing an Aquatic Physical Therapy Program (manual)
To order: aquaticpt@assnoffice.com
www.aquaticpt.org/products/publications.htm

Managing the Aquatic Therapy Environment Through Facility Management & Design (audio CD)
To order: aquaticpt@assnoffice.com
www.aquaticpt.org/products/CD_Order052808.pdf