

## Designing Public Swimming Facilities

Preventing Recreational Water Illnesses (RWIs) is a multifaceted issue that requires participation from aquatics facility designers as well as pool staff, swimmers, and health departments. Pool designers can ensure that operators are starting with the most current technology and design features. Although designers alone cannot completely prevent these complex problems, they play a key role in assuring that facilities have an RWI prevention foundation in place on opening day. By considering the following suggestions, based on contributing factors found during RWI outbreak investigations, designers can lead the way to a “Healthy Swimming” facility.



- Install supplementary, optimally-designed, in-line disinfection (e.g., ultraviolet light, ozone) that can inactivate *Cryptosporidium* and potentially improve water quality.
- Install automatic chemical feeders to improve the uniformity of chemical addition.
- Install filters that are sized and optimized for particle and microbe removal.
- Avoid co-filtered pools. In particular, wading pools for young children should have dedicated filters to prevent cross-contamination of other general use pools.
- Adopt “kiddie” pool turnover rates that decrease the length of time that swimmers are exposed to germs and include safety considerations for avoiding suction injuries.
- Ensure adequate ventilation for indoor facilities to decrease exposure to chloramines and other pool water by-products.
- Provide adequate numbers of easily located, close, and safe restrooms, diaper changing areas, and shower facilities to promote good swimmer hygiene.
- Install diaper changing and hand washing facilities near children’s pools to promote good hygiene and diaper changing practices among parents.