



PUBLIC HEALTH CONCERNS REGARDING PSEUDOMONAS AERUGINOSA AND SPAS

Pseudomonas aeruginosa is a bacterium commonly found in spas. If allowed to reach unsafe levels. The presence of *pseudomonas* may cause several health problems including skin rash and other skin infections, ear infection, urinary tract infection, and in rare instances, pneumonia. As spa operators, you should be aware of *pseudomonas*, and how to control its growth.

Where does *Pseudomonas* grow?

Pseudomonas grows in water. It thrives at warm temperatures, which is why it is so often associated with spas. If spa water is not properly maintained chemically, it may become a breeding ground for *pseudomonas*. However, *pseudomonas* is often not completely eliminated with proper disinfection and pH control. Therefore, it may always be present and must always be controlled.

What kind of health problems are caused by *Pseudomonas*?

As stated above, *pseudomonas* may cause skin rashes and other types of skin infections, ear infections, urinary tract infections, and in some cases even pneumonia. These illnesses have been recorded amongst Spa bathers since 1972 and have affected men and women equally, young and old. Illness may last up to a week and, in minor cases, does not usually require medical attention.

How can *Pseudomonas* growth be prevented?

Pseudomonas growth can only be prevented by proper maintenance of the spa. Illness outbreaks are often associated with spas that do not receive regular (daily) maintenance. *Pseudomonas* growth cannot be controlled by increasing the temperatures of the spa. It thrives at warm and even very hot temperatures. Proper chlorination (2 to 6 ppm) and pH (7.2 to 8.0) control will help to combat *pseudomonas* growth. But because some *pseudomonas* may survive disinfection procedures, it is necessary to drain the spa regularly and scrub the surfaces of the spa, where *pseudomonas* may attach and thrive.

What to do if a *pseudomonas* outbreak occurs in your facility:

If you suspect a *pseudomonas* outbreak at your facility, you should close the spa and report names, addresses and phone numbers of any affected bather(s) to the Health Department immediately. Additionally, do not drain or shock the spa water. In order to confirm an outbreak, the Health Department must test bacteriological samples from the affected bather(s) as well as the spa water. So we must be able to use the same spa water that the bather(s) used. When the Health Department has finished testing the water, drain the spa and scrub the surfaces. Fill the spa with fresh water and resume normal disinfection procedures. To prevent *pseudomonas* from being reintroduced into the spa, do not allow any previously infected bather(s) to the spa until they have been assured by a doctor that they are no longer infected with *pseudomonas* (i.e. until you have seen a doctor's note).

For more information about *Pseudomonas aeruginosa*, contact the Health Department at (509) 582-7761.