



# Aquatic Consulting Services

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## **Pool Tip #37: Frothy Discharge After Drowning**

The pink-red frothy discharge from drowning victims is a result of hemolysis. This frothy discharge is typically observed during resuscitation attempts in wet drowning victims who have been submerged for more than 15 minutes. Less than 15 minutes, it is typically a whitish froth. After 50 minutes, it is usually brown in color.

In a freshwater pool drowning, water enters the lungs, and is drawn through alveoli membranes into the blood because of the higher sodium content of blood. Blood volume increases. Hemolysis, an exploding of red blood cells into the plasma, may occur causing an oxygen transport problem. Blood dilution within two or three minutes of the osmotic transfer causes an electrolyte imbalance. The sodium, potassium, chloride and magnesium chemical imbalance leads to ventricular fibrillation.

Ventricular fibrillation, or heart spasm originating in the ventricles, is fatal if it persists. Ventricular fibrillation results in ineffectual, imperfect or incomplete heart contractions, ventricular asystole, prevents cardiac output, and leads to cardiac arrest, or heart stoppage.

Successful treatment requires basic life support and CPR within 4 minutes and prompt defibrillation within 8 minutes. But unfortunately, the prognosis for resuscitation of a drowning victim is poor if there is a prolonged period of inadequate coronary activity.