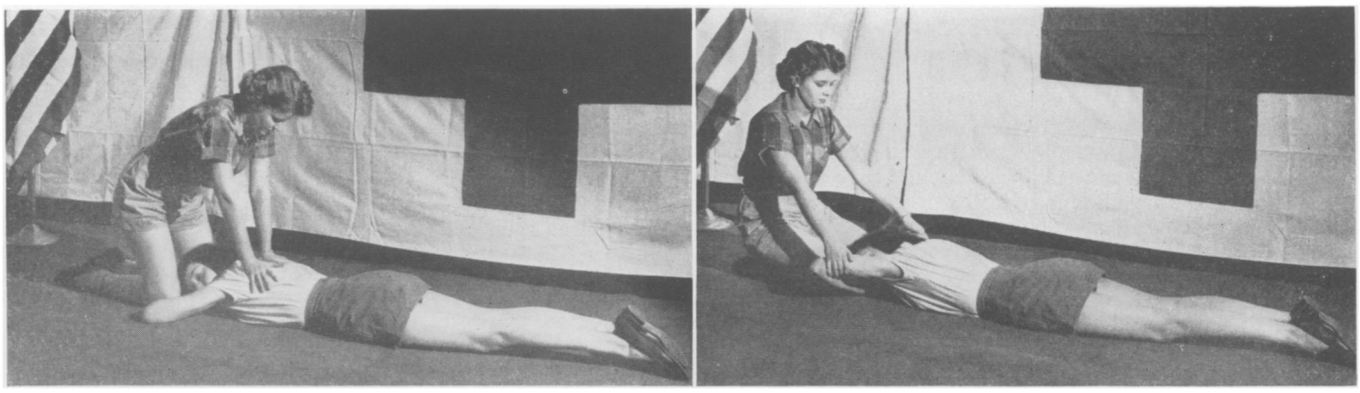

ARTIFICIAL RESPIRATION—These pictures show the two positions used in the back-pressure arm-lift method of giving artificial respiration, just approved for official public use. The left photograph illustrates air being forced out of a victim's lungs, while the right one shows the position for forcing air into the lungs.

PUBLIC HEALTH

New Respiration Method

Artificial respiration by the back-pressure arm-lift method now approved. Gives twice the lung ventilation of the Schafer method.

➤ A NEW and better way of giving artificial respiration to save the life of a person whose breathing has been stopped by drowning, gas, electric shock or suffocation has now been approved by the Department of Defense, the American National Red Cross, the National Research Council and the U. S. Public Health Service.

It is called the back-pressure arm-lift method. It replaces in Red Cross and other first aid teaching the Schafer prone-pressure method which first aiders have been taught for many years. Reason for the change is that this new method gives twice the ventilation of the lungs as the Schafer method. Other methods more effective than the Schafer have also been developed, but they are harder to learn and require more strength to perform.

The back-pressure arm-lift method was developed by Holger Nielsen of Denmark and has been used successfully for two decades in the Scandinavian countries.

As in all attempts to save the life of a person whose breathing has stopped, time is of utmost importance. Seconds count, so start at once without waiting to move the victim, loosen clothing or anything else.

Here are the directions for the new life-saving method:

1. Place the subject in the face down, prone position. Bend his elbows and place the hands one upon the other. Turn his face to one side, placing the cheek upon his hand.

2. Kneel on either the right or left knee, at the head of the subject, facing him. Place the knee at the side of the subject's head close to the forearm. Place the opposite foot near the elbow. If it is more comfortable, kneel on both knees, one on either side of the subject's head. Place your hands upon the flat of the subject's back in such a way that the heels of the hands lie just below a line running between the arm pits. With the tips of the thumbs just touching, spread the fingers downward and outward.

3. Rock forward until the arms are approximately vertical and allow the weight of the upper part of your body to exert slow, steady, even pressure downward upon the hands. This forces air out of the lungs. Your elbows should be kept straight and the pressure exerted almost directly downward on the back.

4. Release the pressure, avoiding a final thrust, and commence to rock slowly backward. Place your hands upon the subject's arms just above his elbows, and draw his arms upward and toward you. Apply just enough lift to feel resistance and tension at the subject's shoulders. Do not bend your elbows, and as you rock backward the subject's arms will be drawn towards you. Then drop the arms gently to the ground. This completes the full cycle. The arm-lift expands the chest by pulling on the chest muscles, arching the back, and relieving the weight on the chest.

The cycle should be repeated 12 times per minute at a steady, uniform rate. The compression and expansion phases should occupy about equal time, the release periods being of minimum duration.

It is all-important that artificial respiration, when needed, be started quickly. There should be a slight inclination of the body in such a way that fluid drains better from the respiratory passage.

The head of the subject should be extended, not flexed forward, and the chin should not sag lest obstruction of the respiratory passages occur. A check should be made to make sure that the tongue or foreign objects are not obstructing the passages.

These aspects can be cared for when placing the subject into position or shortly thereafter, between cycles. A smooth rhythm in performing artificial respiration is desirable, but split-second timing is not essential.

Science News Letter, December 15, 1951

MEDICINE

War, Plasma, Drugs Blamed For Cirrhosis Increase

➤ WORLD WAR II, increased numbers of blood plasma transfusions and some of the modern disease remedies from sulfa drugs to aureomycin were blamed as perhaps responsible for an increase in cases of cirrhosis of the liver.

The increase in this disease and these various possible causes for the increase were reported by Dr. Sidney A. Portis of the University of Illinois College of Medicine, Chicago, at the meeting of the American Medical Association in Los Angeles.

In the past cirrhosis of the liver has mostly been associated with alcoholism, malnutrition, inflammation of the gallbladder and gallstones.

The widespread prevalence of infectious inflammation of the liver during World War II, Dr. Portis said, produced sporadic inoculation of persons never before exposed to the virus of this disease. Many medical men, he pointed out, hold there is a relationship between that disease and cirrhosis of the liver.

Sulfa drugs, aureomycin and some other drugs, he said, have caused disturbance of liver function in some cases. He ascribed other cases of cirrhosis to blood banks and the use of plasma that had not been irradiated to destroy the virus of the infectious liver inflammation.

Science News Letter, December 15, 1951