

What you need to know about Cardiopulmonary Resuscitation

Common Questions: (Patient and Family Education Sheet)

How successful are efforts to restart a heart?

Can we know ahead of time which people are least likely to be revived?

How does one let their wishes be known if they do not want a resuscitation effort attempted?

CPR: Cardio-Pulmonary Resuscitation: developed in the '60's, used when a person's heart or breathing stops. Now often called a Code Blue, has 4 components:

Forceful compressions to chest to try to get blood moving through the heart

Air pushed via bag or by mouth into person's lungs

Defibrillator to "shock" the electrical signals in the heart muscle

Medications to enhance all above efforts.

Early guidelines stated "CPR is not indicated in certain situations, such as cases of terminal irreversible illness when death is not unexpected....Resuscitation in these circumstances may represent a positive violation of a person's right to die with dignity"

Survival Rates: Medical Research tells us that in most communities throughout the U.S. the survival rate of persons receiving CPR **outside** of the hospital is less than 5%. (1)

CPR: initiated in-hospital: Approximately 15% survived to discharge functioning well
Patients with greatest chance of survival:

Those with abnormal heart rhythm: 21 % survived

Those with respiratory arrest only; and

Those who were generally healthy **and cardiac or respiratory arrest is the only medical problem**

Patients with least (0-2%) chance of survival:

Those who have more than one or two medical problems and advanced yrs

Those who do not live independently or, in other words, those who are home-bound with additional care needs, or live in long term care or nursing homes

Those who have a terminal illness (2)

CPR in Long Term Care:

Nursing homes have professionals trained in CPR. Unless an order is written not to start CPR, nurses will call 911, and the rescue squad will arrive. Calling 911, without a Comfort One order, or a Do Not Resuscitate order, means all components of a Code will occur, and the patient will be brought to the emergency room. Measures could include ventilator machine to take over breathing with the insertion of a tube down into the windpipe.

The research on CPR indicates that 0-2 % of persons in Long Term Care, (or that have multiple illnesses) receiving resuscitation attempts will survive. Why does CPR offer so little hope for frail, debilitated persons in these settings? Because most of the

characteristics that point to a poor outcome for the survival in hospital patients are common in this population.

Some people ask, “Can we just try CPR at the nursing home and not transfer a resident to the emergency room, where they do more aggressive treatment?” This is not standard procedure and for good reason. If the attempt is requested, the professionals involved will want all the support possible. Once the chain of events is set in motion, it is very difficult to stop until every procedure has been attempted. If the heart is restarted, ICU care will be needed, a ventilator machine is highly likely. CPR severely reduces the possibility of a peaceful death.

Burdens of CPR

Usually ribs are broken during the CPR attempt, even in relatively young healthy persons, due to the necessary force of the chest compressions, and sometimes a lung or spleen may be punctured. If too many minutes have elapsed without oxygen to the brain, there will be brain damage, even if the heart is restarted. Brain injury can range from subtle changes in intellect and personality all the way to permanent unconsciousness (“Persistent vegetative state”).

CPR and the Patient with a Life-Threatening Illness

Some patients may benefit from CPR. A frank discussion with a physician will help any patient assess the possible benefit. Those who find themselves among the “patients with the least chance of survival” group will find the medical benefits from CPR minimal. The frailty that goes with the worsened medical condition common among persons with life-threatening illness contributes to this poor outlook for survival.

CPR with Children

Age has not been shown to be a factor in the success of CPR; some of the same conditions that make resuscitation attempts unsuccessful in the general population apply to children. Children with multiple organ system failure or those in the terminal phase of a disease have little chance of surviving CPR.

CPR is the Standard Order

Upon admission to a nursing home or hospital, it is assumed that every patient whose heart stops will receive CPR. This presumption *for* CPR is reasonable since any delay in beginning the procedure greatly reduces the chances for success. If a person would rather not have a resuscitation attempt, an order must be written: No Code, or Do Not Resuscitate (DNR).

Comfort One is an order for out-of-hospital DNR. A physician writes the Comfort One order. You will receive a wallet card, a big green envelope with a copy of that order, and can purchase a Comfort One bracelet from the pharmacy. This lets your family and medical team know of your desire for comfort and supportive help (for the patient) while not running the risk of attempts at resuscitation or being “hooked up to machines”.

(1) New England Journal of Medicine, Vol.351;647-656, Aug 12, 2004 “Advance Cardiac Life Support in Out of Hospital Cardiac Arrest, Stiell, MD, Wells, PhD, Brian Field, ACP, MBA

(2) Detailed resources listed in “Hard Choices for Loving People”, Hank Dunn, 2001, A&A Publishers, Inc.