

# Cardiopulmonary Resuscitation (CPR)

Making the choice of trying cardiopulmonary resuscitation (CPR) is not easy. This sheet provides answers to some questions about what CPR involves and what else is important to think about when making a decision about CPR.

## What is CPR?

CPR is used to try to restart the heart and breathing after these have stopped. CPR actions are:

- Pushing on the chest to try to restart the heart, and
- Blowing in the mouth or putting a tube in the mouth and down the airway to provide air.

Shocking the heart or giving drugs through an intravenous line (IV) may also be needed. The person is then taken to the hospital emergency department. Those who survive are transferred to the intensive care unit (ICU) and attached to a ventilator (breathing machine) and a heart monitor.

## When is Attempting CPR Most Successful?

On TV shows, CPR is shown as an easy life-saving action that is successful 67% of the time.

A healthy person whose heart stops suddenly due to an accident or heart attack has the best chance to return to good health after having CPR. CPR is also more successful if the person is already in the hospital, where health care workers can give care quickly. In general, studies show about 18% of adults who receive CPR survive to leave the hospital. (Nakami et al JAMA 2006)

Having a chronic illness decreases the survival rate of CPR. An elderly person with a chronic illness has an average survival rate of less than 5%. For those with advanced illness, such as Alzheimer's, Parkinson's or end-stage heart, lung or kidney disease survival rates are less than 1%.

Those with advanced dementia have a survival rate that is three times lower than those without.

## What is the Downside of Attempting CPR?

Because a lot of force is needed to move the heart, CPR causes pain. Ribs are broken in up to 97% of CPR attempts. CPR attempts can also hurt the liver, bruise the chest and cause burns from the electric shocks.

The brain loses air when the heart stops beating and the person is not breathing. Permanent brain damage may occur from lack of air in up to 50% of those who have CPR attempted. The heart also loses its ability to beat normally. The person may be on a ventilator for days, weeks, months or longer. The person will likely need placement in a long-term care facility that can meet his/her needs.

For a person who is very ill or dying, CPR is not likely to help since the heart and breathing stop because of the illness. CPR may put the sick person in pain and distress for the last days of his or her life.

## Choosing Do Not Resuscitate (DNR)

After careful consideration of benefits and risks, persons can decide that they do not want CPR attempted. Choosing to not attempt CPR is called "do not resuscitate," or DNR. DNR is also referred to as "allow natural death." Persons who choose DNR still receive medical care and treatment. DNR only applies to the CPR process and not to overall care.

Whatever the decision, it's important to talk to your health care provider about putting your wishes in writing or having a physician order, before a crisis occurs.