



# EHAC Course

## The Deputy Heart Attack Program & Early Heart Attack Care (EHAC) Education

The Deputy Heart Attack program disseminates Early Heart Attack Care (EHAC) education. The Deputy Heart Attack program garners its name from earlier days when the sheriff would deputize every citizen in order to protect the town from imminent danger. By participating in this program, participants become “deputies” who learn the early heart attack symptoms and provide immediate medical care in order to prevent a death or serious heart damage.

### The History:

The Deputy Heart Attack Program and Early Heart Attack Care education was created by cardiologist Dr. Raymond Bahr. He was a pharmacist whose life was forever changed when he did not recognize the early heart attack signs in a friend who later died. From that point on, Dr. Bahr made it his mission to prevent unnecessary deaths by becoming a cardiologist and dedicating his life to educating people on the early symptoms.

### The Deputy Heart Attack Symbols:

Deputy Heart Attack uses two badges that are given to deputies. The first badge, *“Heart Attacks Have Beginnings,”* is worn after a new deputy takes the course and the pledge. The second badge is known as the *“Good Samaritan”* or *“Buddy Badge.”* The image depicts one person helping another into a chest pain center. Each badge starts a conversation. Share the early signs and symptoms of a heart attack and always remember to call emergency services as soon as possible.



### The Message:

Our message is simple - like other diseases and illnesses (cancer, diabetes, etc), there are early symptoms of a heart attack that are apparent long before a massive event occurs. Early detection is vital to prevent death or severe heart damage. Use Early Heart Attack Care (EHAC) education to help drastically reduce the mortality rate.

*Will you help us spread the message?*



ACC  
Accreditation  
Services

Deputy Heart Attack™, Early Heart Attack Care™, and EHAC® are trademarks of the American College of Cardiology Foundation. All Rights Reserved. For more information about ACC Accreditation Services, please visit [cvquality.acc.org/accreditation](http://cvquality.acc.org/accreditation).



## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### EHAC Course

#### EHAC Course: Section 1

The Early Heart Attack Care (EHAC) education shares the early warning signs of a heart attack. These symptoms can be non-specific or specific.

##### SPECIFIC HEART ATTACK SYMPTOMS (PRODROMAL ANGINA)

- Chest discomfort
- Chest pressure
- Chest ache
- Chest burning
- Chest fullness

##### NON-SPECIFIC HEART ATTACK SYMPTOMS

- Weakness
- Sweating
- Nausea
- Dizziness

These mild symptoms may indicate the onset of a heart attack. They may come and go for hours or days before the chest pain becomes severe. Early symptoms are called prodromal and can be likened to the prodromal symptoms of a cold. When treated early, prevention can take place to avert sudden death and cardiac damage. ***Early recognition and response saves lives.***

#### 1. What do we know about heart attacks?

Heart attacks are the number one killer of the adult population in the United States. According to recent statistics:

- Every year approximately 735,000 Americans have a heart attack.
- Of these, 525,000 are a first heart attack and 210,000 happen in people who have already had a heart attack.
- Almost 50% may be unaware or don't act on early warning signs.

*Note: Statistics provided by Centers for Disease Control.*

*<https://www.cdc.gov/heartdisease/facts.htm>*

#### 2. Can I reduce my heart attack risk?

Yes, learn the risk factors and modify your lifestyle to reduce the chance of heart disease. Some of the risk factors include:

- A family history of cardiovascular disease
- High blood pressure
- Overweight or obese
- Sedentary lifestyle
- Using tobacco products
- Metabolic disease, diabetes or other illnesses
- For women it can also include birth control pills, a history of pre-eclampsia, gestational diabetes or having a low birth weight baby

#### 3. What causes a heart attack and why do people die?

The heart is a great pump and it needs a steady blood supply to survive. There are three major blood vessels supplying the heart. When a blockage occurs, it interferes with the blood supply. This blockage could potentially lead to heart damage or possible death.

#### 4. What causes a blockage?

A disease called atherosclerosis or "hardening of the vessels." Our lifestyle may include well-known risk factors such as hypertension, cholesterol and cigarette smoking. Over a long period of time, the cholesterol plaque build-up will rupture which allows a clot to form and the vessel closes.

#### 5. Why is there chest pain?

Chest pain is a main "risk factor" or symptom that tells you a heart attack is occurring. To understand, let's take a closer look at what is taking place. Over time, plaque builds up in the areas that feed blood to the heart. When the plaque tears away or (ruptures), the body immediately begins to repair itself by forming a clot to heal the tear. But as the clot gets bigger and bigger, it blocks the heart from getting blood flow. Without blood, the heart begins to die.



## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

Imagine a scratch on your hand. The blood clots in order to stop the bleeding. Now think of this clot inside your blood vessels. The body is trying to heal itself, but as the clot grows, it is also blocking the blood flow to the heart. Remember, the heart is a muscle. As blood flow slows, the heart begins to “spasm.” The sequence in most cases is: chest discomfort which leads to chest pain, which leads to unstable angina, which leads to damaging myocardial infarction, which leads to sudden death. The heart stops.

#### 6. Can heart attack symptoms be different for men vs women?

Yes. Although there is some debate on this topic, please be aware of these possible signs and seek medical care.

- Men may normally feel pain and numbness in the left arm or the side of the chest. In women, these symptoms may appear on the right side.
- Women may experience unexplained exhaustion, or feel drained, dizzy or nauseous.
- Women may feel upper back pain that travels up into their jaw.
- Women may think their stomach pain is the flu, heartburn or an ulcer.

#### 7. Any other signs?

Yes. They are called “atypical presentations.” The Individual may not complain of chest pressure, but may feel:

- Pain that spreads above the jawbone or into the lower body.
- Difficult or labored breathing.

#### 8. What are the types (or “stages”) of heart attacks and how can I help?

There are actually three presentations of a heart attack and if you are the first person upon the scene, you are the first responder. You are the Good Samaritan who performs cardiopulmonary resuscitation (CPR), calls 9-1-1, deploys an Automated External Defibrillator (AED), or convinces someone to get medical help.

**Type 1:** The heart attack stops you dead in your tracks. This is called the CPR scene. In this first type of heart attack, call 9-1-1 and immediately begin CPR. Remember - push hard, push fast.

**Type 2:** A heart attack where early damage is taking place. The individual is experiencing intense chest pressure. Call 9-1-1 to summon help. Keep the person calm because they are usually weak or in severe pain.

**Type 3:** The heart attack is just beginning and EHAC provides a beneficial impact. This is the most difficult time to get someone to seek medical care. The person will complain, but then excuse it as food poisoning or gas. The person has minimal symptoms but is practicing maximum deniability. The patient-to-first-responder interaction can be frustrating. The person tries to ignore it.

At this point, they can convince the first responder to contribute to the denial. Even paramedics find it difficult to convince a conscious person to go to the hospital.

#### 9. Is there a secret to getting someone to medical care?

The first responder (or bystander) must understand that the time to help is when the heart attack is in the beginning stages. Be prepared to argue with the person to seek out an early check up in an emergency room. It is important to be proactive and be heart smart. A Good Samaritan will solve the problem with their timely actions.



## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

#### **10. Why is denial such an important part of the heart attack problem?**

It is part of our lifestyle. We constantly forget about ourselves and live our lives as if we are indestructible or immortal, and it is only during a time of crisis that the reality of the situation becomes evident.

#### **11. How can I help someone?**

We review several responder-to-patient scenarios in Section 3. However, a person's status can quickly change from conscious to unconscious. We ask that you learn CPR, understand how to use an AED, but above all, Call 9-1-1!

#### **12. Dr. Bahr, any final advice?**

"Yes, I ask people if they were to develop a blockage in a heart vessel, what stage would they prefer to experience? People always choose early care. Remember, response and recognition saves lives."



## Section 2: Why Don't People Seek Immediate Medical Care?

- The person may not perceive the mild discomfort as life-threatening. Mild symptoms are easy to ignore. We hope the discomfort will just go away.
- People may confuse the early warning signs of heart attack with heartburn or indigestion and self-medicate.
- First responders or bystanders may be easily swayed by the denial of the individual.
- People may not understand the importance of a quick response. They may not know that the majority of damage may take place in the first two hours of a heart attack.
- People may be concerned that their mild symptoms are “not important” or the attention is “unwarranted.”

*Tell them,  
“The majority of heart  
damage occurs within  
the first two hours of a  
blockage.”*



## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

### Section 3: Overcoming the Individual's Reluctance

The mild pain of angina is easily ignored because:

- The symptoms are mild.
- The onset of pain might not be noticeable.
- There is a strong tendency to doing the same thing.
- In some cases, there are no risk factors.
- The person is seldom ill and feels indestructible.
- The person needs to feel in control.
- The person is worried about what others will think.

When a patient asks, "Why call 9-1-1?"

- Emergency Medical Technicians (EMT) know what to do in order to save a life. Many ambulances are equipped with life-saving machines and medications that can diagnose a heart attack and stimulate the heart in case it stops.
- In communities throughout the USA, ambulances can activate a heart attack alert while they are on the way to the hospital. These facilities then activate their staff in order to provide immediate care upon arrival.

## ***ACT WISELY:***

*A - Acknowledge the problem*

*C - Be Calm*

*T - Be Tenacious and do not give in!*

*W - Be Willing to give your time*

*I - Be Influential*

*S - Keep it Simple*

*E - Be Empathetic*

*L - Help Link the person with early symptoms to the hospital*

*Y - Say Yes - I will!*



### **Section 4: Television Heart Attacks**

Unfortunately, heart attacks on television are merely “drama” and give viewers the wrong message. Heart attacks seen on television programs depict a dramatic cardiac arrest situation or someone who clutches their chest and collapses. Yet despite these end stage presentations, a 1996 study published in the New England Journal<sup>1</sup> included television programs such as ER, Chicago Hope and Rescue 911 and the survival rate was 67%. This contrasts greatly with the actual CPR survival rate.

Thus, television programs not only teach the wrong message but also readily acknowledge this fact. Neal Baer, MD the writer and producer of ER is quoted as saying in a Journal of the American Medical Association (JAMA) article “that while efforts are made to depict accurate and credible medical care, the show’s dramatic foundation is primary.”

Early symptoms are rarely portrayed on television programs because they are not dramatic enough to get the viewer’s attention. It is a sad commentary, but it is true. One would hope that some day the television programs would see the value as well as the potential drama that could result in bringing out this message.

Notes:

1. “Cardiopulmonary resuscitation on television.  
Miracles and misinformation.  
N Engl J Med. 1996 Jun 13;334(24):1578-82.  
Diem SJ1, Lantos JD, Tulsky JA.”
2. Cardiac Event Survival and CPR Statistics are dependent on several factors. The rates can be higher or lower based on community response and where it occurs.

*If you have a heart attack on TV, your survival rate is 67%.*

*If you have one in the real world, your survival rate is approximately 15%<sup>1</sup>.*





## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

### Section 5: What is Early Heart Attack Care (EHAC)?

Early heart attack care consists of two parts -- recognition and response. Recognize the subtle early warning signs and respond by seeking immediate medical care. To save lives, we must recognize and respond.

#### Why is it so important to promote Early Heart Attack Care?

We know that CPR can save lives by intervening when there is a sudden (acute) heart attack. We know that we can further assist by finding and using an AED to shock the heart to cause it to beat again. So, while heart damage may have occurred, unfortunately, sometimes death cannot be averted. It makes more sense to check out the symptoms of mild chest discomfort before a blockage takes place. In many cases, we can stop the progression of a heart attack if we are alert to the early signs.

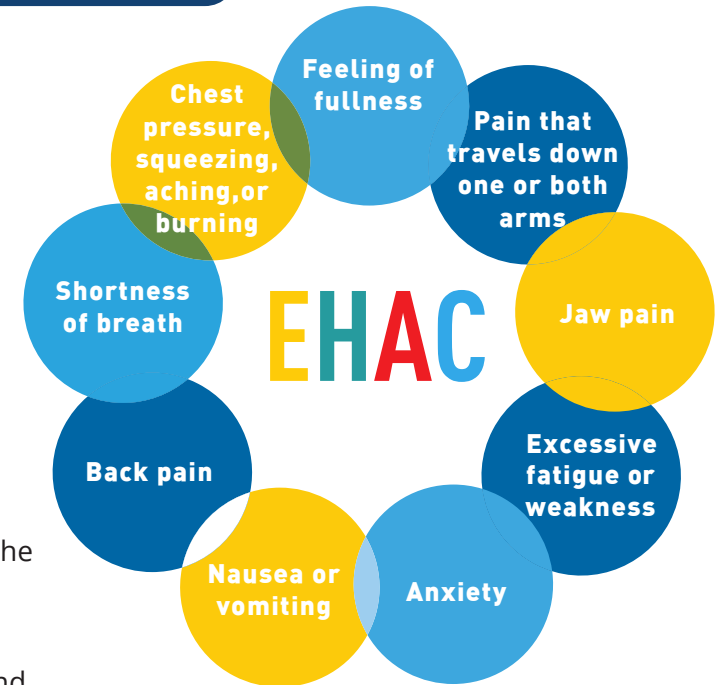
#### Why is this necessary?

We can save not only a life, *but the quality of a life.*

#### What is the plan?

1. Heart attacks have beginnings. Educate the public to recognize the early warning signs:
  - Mild chest pain, pressure, or discomfort
  - Recurring pain or discomfort in the chest that occurs with activity
  - Shortness of breath
  - A burning feeling in the throat and chin that can be confused with heartburn or indigestion
2. Educate the public to respond immediately to prevent heart damage and avoid sudden death.

Your action can save lives. Whether you are experiencing the early symptoms yourself or you are a witness to someone else experiencing early symptoms of a heart attack, you can become an early cardiac care giver by insisting on medical attention.



3. The Early Heart Attack Care education includes the following action steps:
  - Recognize the early signs and symptoms and get the person to care as soon as possible.
  - If the person collapses, Call 9-1-1, perform CPR, and deploy an AED.





## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

## Section 6: Empower Your Community - Become An EHAC Deputy

### The “Activation” of the Community in Heart Attack Response

In concept, the word activation implies going from a latent phase to one of a heightened activity. As it applies to the heart attack problem, knowledge of what takes place is not enough. Knowing and responding is what is needed. To this extent the Deputy Heart Attack Program answers this problem.

It takes its name from the earlier days when each town had a sheriff. In times of crisis, the sheriff activated the community by deputizing all of the people in the town! The heart attack problem can be likened to a community crisis in which we also need to take action to fight the effects of this disease to prevent further damage.

### If your neighbor or family needed immediate medical attention, would you call 9-1-1?

Once you have completed this course, you are asked to take a pledge to save a life. It has been our experience that such individuals are truly moved by this approach. They are given a badge which they proudly wear displaying the words “Heart Attacks Have Beginnings”.

This badge will start a conversation. Try it and become an educator yourself!

Hopefully this first generation approach can spread across the communities in order to activate and educate everyone about the preventative aspects needed in early heart attack care. The activation of the “Deputy Heart Attack” program thus becomes a movement to spread awareness.

### Remember, “Like Cancer or Diabetes, Heart Attacks Have Beginnings”

Why do we say this? Well, if your friend told you they had a lump, would you tell them to ignore it? Of course not. Some will say not all heart attacks have early signs and symptoms. And we agree. But if you would encourage someone to seek medical care when they tell you about a suspicious lump, we encourage you to apply the same logic if someone tells you they are experiencing chest pain, chest pressure or any of the noted early symptoms of a potential heart attack.





## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

### Section 7: Early Symptom Progression

- The three presentations of recognition and response are depicted in this cliff scene
- Stuttering heart attack: walking through the warning signs. Seek medical care for evaluation
- Crushing heart attack: clinging on the edge of the cliff and the person may be unconscious, so call 9-1-1 and begin CPR
- Cardiac arrest: over the cliff. CPR and medical care are immediately required.

## Heart Attacks Have Beginnings.

YOU KNOW CPR — GREAT! BUT DO YOU KNOW EHAC — EARLY HEART ATTACK CARE?

**ALL HEART ATTACKS ARE NOT CREATED EQUAL!**

Heart attacks come in different sizes and shapes. In most cases, they begin with warning signs that tell us something — this is, heart damage and/or death — is impending. The road to destruction and the “crash” of your life has stop-off points that can save you if you recognize the signs.

**THE 5 STEPS TO BECOMING AN EARLY HEART ATTACK CARE GIVER:**

1. Learn the warning signs.
2. Take the quiz.
3. Take the Caregiver’s Oath.
4. Become deputized.
5. **Spread the word & save a life!**

**CHOOSE EARLY — DON’T DELAY**

Don’t take chest pain lightly. It often is a warning signal for a heart attack. And that’s when your prompt action may be the key to your survival. Research shows that treatment of heart attacks in the first hour offers the best opportunity to prevent damage to heart muscle, and to ensure survival and faster rehabilitation.

**EARLY HEART ATTACK CARE GIVERS OATH**

I hereby solemnly swear that when a person in my presence is experiencing the early symptoms of a heart attack, I will make every effort to get that person to go to the nearest hospital emergency room to get those symptoms checked out.



## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

#### Section 8: EHAC Quiz

- If a friend, co-worker or spouse confides in you that they are experiencing mild symptoms of a heart attack, how would you respond?
  - Tell them it's probably indigestion and advise them to take some Tums.
  - Encourage their denial because you are too busy.
  - Tell them that they are probably suffering from a gall bladder attack or a hiatal hernia.
  - Show concern and ask them if they have experienced these symptoms before.
- What questions should you ask the person experiencing early heart attack symptoms?
  - Is the discomfort, tightness, pressure, or pain located in the center of the chest?
  - Are the symptoms present in the chest, throat, jaw, upper back or inside of the left arm?
  - Did these symptoms come on with exertion and do they go away with rest?
  - All of the above
- If the person answers "yes" to your questions, how should you respond?
  - Expect denial if the symptoms are minimal; look for the most critical issue and take charge.
  - Explain to this individual that they may be experiencing the earliest symptoms of a possible heart attack.
  - Encourage this individual to get symptoms checked out at the nearest Heart Attack Care Center/Emergency Room.
  - Call 911 or assist the individual to the nearest Chest Pain Center/ Emergency Room.
  - All of the above.
- What are the possible presentations of a heart attack?
  - Cardiac Arrest
  - Severe chest pain
  - Central chest pressure, ache or burning sensation
  - All of the above
- Which of these responses can help to save a life?
  - Perform Hands-Only CPR
  - Call 9-1-1
  - Seek early medical care
  - Deploy an AED
  - All of the above
- At what stage can a threatening heart attack possibly be avoided (prevented)?
  - At the cardiac arrest stage
  - At the crushing severe chest pain
  - At the mild onset of chest discomfort
- Approximately how many people have a heart attack in the USA each year?
  - 735,000
  - 60,000
  - 6,000
- Early chest discomfort occurs in approximately what percentage of people with heart attacks?
  - 50%
  - 20%
  - 5%
- Approximately how many heart attacks are considered a "first heart attack" in the USA each year?
  - 525,000
  - 25,000
  - 210,000
- What does the acronym EHAC stand for?
  - Evolving Heart Attack Care
  - Early Heart Attack Care
  - Emergency Heart Attack Care

#### Answers:

- |        |         |
|--------|---------|
| 1. - D | 6. - C  |
| 2. - D | 7. - A  |
| 3. - E | 8. - A  |
| 4. - D | 9. - A  |
| 5. - E | 10. - B |



## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

### Section 9: Take the EHAC Pledge

*I understand that heart attacks have beginnings that may include chest discomfort, shortness of breath and/or arm pain, and weakness. These may occur hours or weeks before the actual heart attack. I solemnly swear that if it happens to me or anyone I know, I will call 9-1-1 and activate our Emergency Medical Services.*

### Section 10: Deputy Heart Attack Certificate

**EHAC**

**CERTIFICATION OF  
COMPLETION**



is hereby recognized for their efforts in promoting the Deputy Heart Attack program and understanding the benefits of Early Heart Attack Care.

With this certificate, I acknowledge I will:

- Spread the life-saving message of early care
- Help overcome denial and delay when experiencing early signs and symptoms
- Be an Early Heart Attack Care-giver
- Help to reduce heart attacks as the number one killer in the USA.

Date: \_\_\_\_\_

*Raymond D. Bahr, M.D.*

Dr. Raymond D. Bahr  
Founder of the Deputy Heart Attack (DHA) program,  
Early Heart Attack Care (EHAC) education and  
ACC Accreditation Services





## Deputy Heart Attack Program & Early Heart Attack Care (EHAC)

### *EHAC Course*

## Links for the Deputy Heart Attack Program & Early Heart Attack Care (EHAC) Education:

**Website:** <https://dha.acc.org>

Most of the links discussed in this document can be found on the home page of the website.

1. **Online Training:** Click "[EHAC Course](#)." This link leads you to the "Standard," the "Short," and the Spanish Course.
2. **Training Materials:** Click the [Educational Materials](#) link to download the referenced materials in this syllabus.
3. **Purchase materials:** Click the "[ACC EHAC Store](#)" link. In this section you can download the brochure, customize the brochure with your logo and purchase Deputy Heart Attack badges
4. **Share your EHAC Stories:** This area has [EHAC stories](#) and news as well as a form where you can submit your EHAC stories. We will contact you if we would like to publish your story.
5. **EHAC Articles:** [Dr. Raymond Bahr](#), the founder of Deputy Heart Attack and Early Heart Attack education has created a library filled with innovative ways you can share EHAC, his EHAC journey and more.

## For More Information

If you have questions about the Deputy Heart Attack Program or Early Heart Attack Care (EHAC) education, please contact us via e-mail: [community@acc.org](mailto:community@acc.org). You can also follow us on Facebook for all of the latest news! We welcome your feedback!

