



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. Although he was not a cardiologist at the time, Dr. Bahr’s life was forever changed when he did not recognize the signs in a friend who later died from a heart attack. 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 get someone to medical care 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?



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, and sudden death and cardiac damage can be averted. ***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.

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.

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 it. When a blockage occurs, it interferes with the blood supply. This damages the pump and we either die or survive with potential heart damage.

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 it, 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.

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.



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6. What kinds of heart attacks are there 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. The first responder is the good samaritan who performs CPR, calls 911, deploys an Automated External Defibrillators (AED), or convinces a potential victim to get medical help as soon as possible.

Type 1: The heart attack stops you dead in your tracks. This is called the CPR scene. In the first type of heart attack, immediately begin cardiopulmonary resuscitation (CPR) and remember - push hard, push fast.

Type 2: A heart attack where early damage is taking place. The patient is experiencing the Mack truck sitting on his chest. Call 911 and behave as an executive spouse because the patient is usually weak and does not put up much of a fuss as they are 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 victim will complain, but then excuse it as food poisoning or gas. The patient has minimal symptoms but is practicing maximal deniability. The patient-to-first-responder interaction can be frustrating. The patient 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 patient to go to the hospital.

7. Is there a secret to getting someone to medical care?

The first responder (or bystander) must understand that the time to help the patient is when the heart attack is in the beginning stages. Be prepared to argue with the patient 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.

8. 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 only are brought to reality when we are taken to our knees. However, we can minimize the damage and change the outcome. A heart attack - even in its infancy stages - is a great transformer and a great reality check. The secret is to nip it when it is in the beginning stage, i.e., chest discomfort before the severe damage or sudden death.

8. How can I help someone?

We review several strategies in Section 3 of this document, learn CPR, understand how to use an AED, but above all Call 911!

9. Any final advice?

Yes, I ask people if they were to develop a blockage in a heart vessel, which type would they like to experience and what action would they prefer? People always choose early care. Several hours can make the difference between a pleasurable and enjoyable life versus no life or cardiac invalidism.



Section 2: Why Don't Patients Seek Immediate Medical Attention?

1. The patient may not perceive the mild discomfort as life-threatening. Mild symptoms are easy to ignore. Patients may even be upset if we encourage them to seek medical advice.
2. We all lead busy lives and do not usually respond to mild discomfort. We continue with the task at hand, hoping the discomfort will just go away. We do not expect that it will worsen and perhaps even incapacitate.
3. If mild symptoms turn out to be nothing of importance, the patient would be embarrassed by the fuss made. It can be embarrassing to go to the emergency room of a hospital if nothing of consequence is wrong.
4. First responders or bystanders may be easily swayed by the rationalizations and denial of the patient. It is easier to go about your business than to be persistent.
5. Patients may not be informed of the importance of a quick response. They may not know that the majority of damage takes place in the first two hours of a heart attack. They may not recognize the early warning signs and may not know the extent of damage that can take place without intervention.
6. Patients may confuse the early warning signs of heart attack with heartburn or indigestion and self-medicate, delaying a lifesaving visit to the hospital.
7. Patients may not appreciate the heart pump for its marvelous role in the pursuit of full activity and don't see it as a finely built apparatus which must be cared for.
8. Patients waste time hoping the symptoms will go away.

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



Section 3: Overcoming a Patient's Reluctance

The mild pain of angina is easily denied by the victim and by others nearby, because:

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

The following are strategies to overcome denial and resistance to medical attention:

- Find out the most critical issue on the victim's mind. This is any idea or looming responsibility which interferes with the victim's decision to seek immediate medical help. Offer to take care of that concern yourself or have someone else do it.
- Suggest that the victim check out any early symptoms, no matter how mild they may seem.
- If the victim is experiencing mild symptoms and refuses to call 911, offer to drive the patient in a private car, which may be less embarrassing than an ambulance.
- If the victim is anxious regarding a spouse or family member, offer to make the contact.
- Enlist family members to help you.
- Try to relieve tension with appropriate humor.
- Be personal and persistent. Sit and talk - don't walk away.
- Congratulate the victim on his or her good judgment: "Great! Let's just get it checked."

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 patient with early symptoms to the hospital.

Y - Say Yes - I will do it!

When a patient asks, "Why call 911?"

- EMT's know what to do in order to save a life. Many ambulances are equipped with life-saving machines 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.



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 present as dramatic cardiac arrest situations or someone who collapses. Yet despite these end stage presentations, a study published in the New England Journal¹ 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 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, Tulsy 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%².



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 an acute heart attack. We know that we can deploy an AED to shock the heart back into action. But heart damage has already occurred and sometimes death cannot be averted. Doesn't it make more sense to check out the mild chest discomfort before a complete 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?

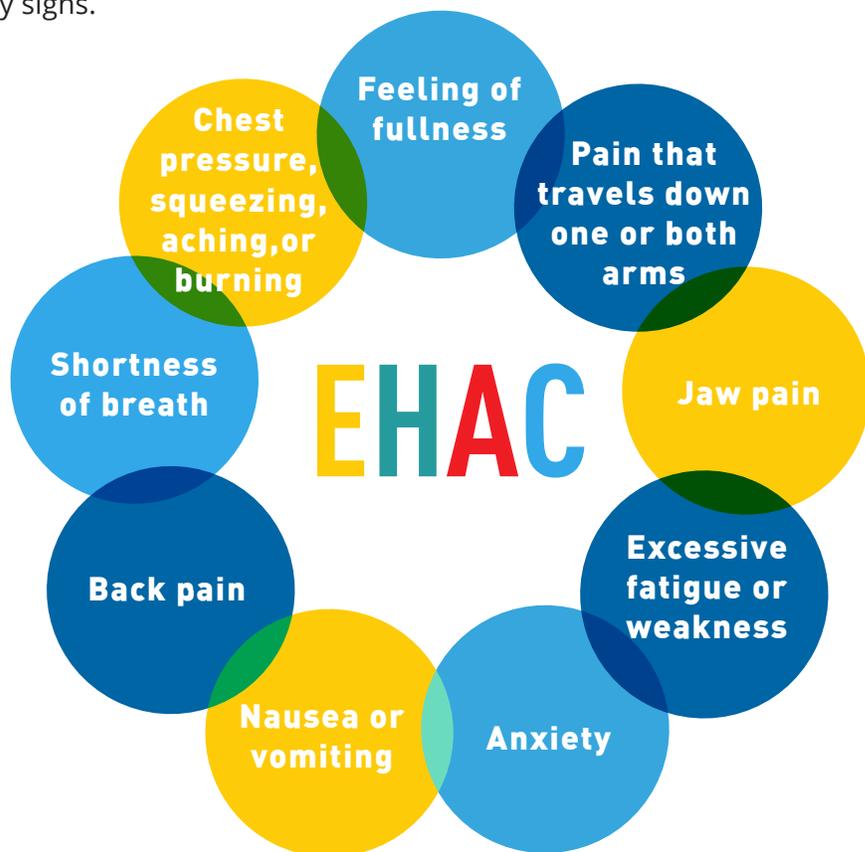
We can save not only a life, *but the quality of a life.*

What is the game 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 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 patient to care as soon as possible.
 - If the patient collapses, perform CPR, deploy an AED and call 911.





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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 origin from the earlier days in which each town had a sheriff and two deputies. In times of crisis, the sheriff activated the community by deputizing all of the people in the town in order to protect everyone! The heart attack problem can be likened to a community crisis in which we also need to take action to fight this killer.



If your neighbor's house was on fire, would you call 911?

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 are to 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 of America in order to activate and educate Americans about the preventative aspects needed in early heart attack care. The activation of the deputization program thus becomes a movement to counter heart attacks.

The Five Steps to Becoming A Deputy for Early Heart Attack Care:

- Read the material and become familiar with the concept.
- Learn about the three presentations of a heart attack.
- Test your understanding of the basic concepts with the short quiz provided.
- Become a deputy by taking the pledge.
- Print your certificate.



Section 7: Early Symptom Progression

The three presentations are depicted on this cliff scene:

1. Cardiac arrest CPR needed deep in the valley
2. Crushing heart attack, large amount of damage clinging on the edge of cliff
3. Stuttering heart attack minimal damage warning signs

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.



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 victim answers "yes" to your questions, how should you respond?
 - Expect denial by the victim 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 three presentations of a heart attack?
 - Cardiac Arrest
 - Severe chest pain
 - Central chest pressure, ache or burning sensation
 - All of the above
- Which of these presentations offers the most benefit?
 - CPR for cardiac arrest
 - Emergency care for severe chest pain
 - Early intervention for the chest pressure, ache, or burning sensation
- When can a threatening heart attack be 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 patients 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. - C | 10. - B |



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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



Deputy for Early Heart Attack Care (EHAC) Certificate

is hereby recognized for their effort in promoting awareness of chest discomfort / chest pain as a risk factor for heart attack and for seeking to change the behavioral response of others by encouraging early care of chest symptoms.

Heart Attacks Have Beginnings

Help overcome denial and delay when having chest symptoms.

Be an Early Heart Attack Care provider.

Help reduce heart attack as the number one killer of adults in the USA.

Raymond D. Bahr, M.D.

Shahriar Dadkhah, M.D.

Date _____



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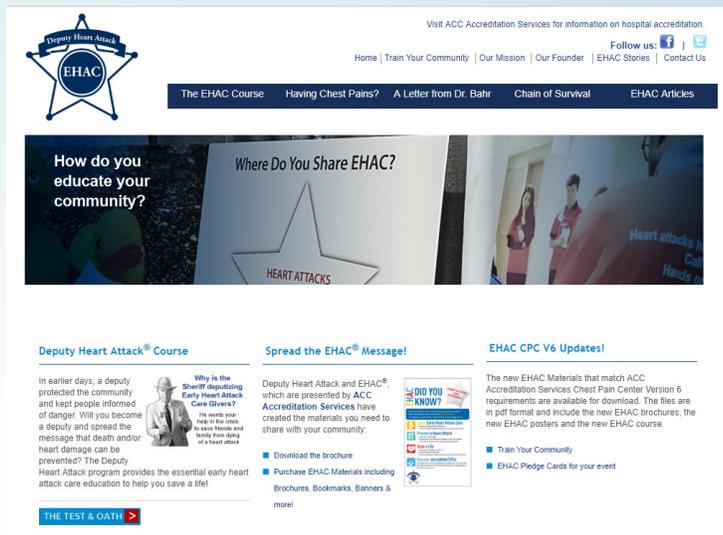
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Links for the Deputy Heart Attack Program & Early Heart Attack Care (EHAC) Education:

Website: <http://www.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 "The EHAC Course." This link leads you to both the "Standard" and the "Short" Course.
2. **Training Materials:** Click the "Training Your Community" link to download the referenced materials in this syllabus.
3. **Purchase badges:** Click the "Spread the Word" 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. You can also follow us on Facebook for all of the latest news! We welcome your feedback!

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