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*If Veterans don't help Veterans, who will?*

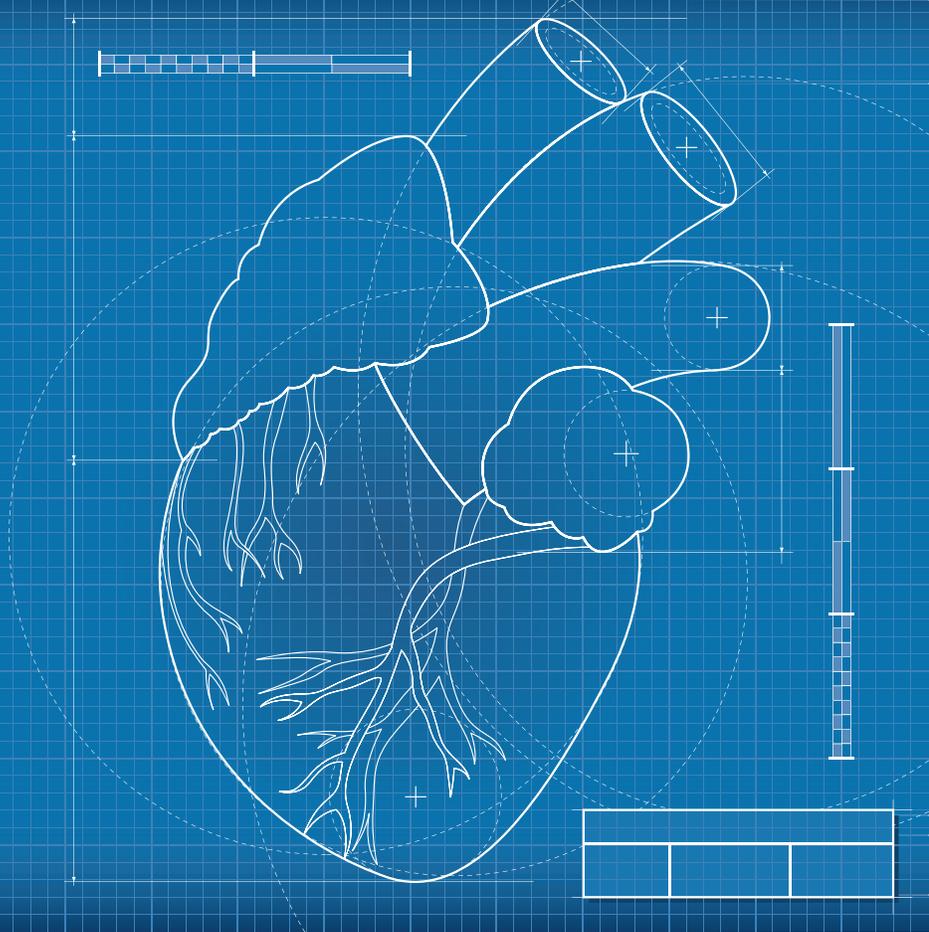
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# WHAT IS: ISCHEMIC HEART DISEASE?



## INSIDE

- 1: **WHAT IS ISCHEMIC HEART DISEASE?**
- 2: **DIFFERENT NAMES OF IHD**
- 4: **VA RATING FOR IHD**
- 5: **WHAT IS EJECTION FRACTION OR EF?**
- 6: **WHAT ARE METS?**
- 7: **HOW CAN YOU TEST FOR METS OR ESTIMATE THEM?**
- 8: **AGENT ORANGE AND IHD**
- 10: **PROVING EXPOSURE TO AO - PRESUMPTION VS. DIRECT EXPOSURE**

Ischemic heart disease or IHD is an inadequate supply of blood and oxygen to the heart muscle. IHD results when one or more of your coronary arteries is narrowed or obstructed or, in rare situations, constricted due to vasospasm, interfering with the normal flow of blood to your heart muscle (ischemia).

In ischemic heart disease, blockages in blood vessels lead to low blood flow to the heart, which can cause chest pain (angina) or other symptoms, such as shortness of breath. If low blood flow is severe and lasts long enough, a section of heart muscle dies, a condition called myocardial infarction or “heart attack.”

Ischemic heart disease can be “unstable” or “stable.” People with unstable ischemic heart disease (UIHD) have symptoms that are rapidly worsening and occur at lower levels of exertion or at rest. People with stable ischemic heart disease (SIHD) have chest pain or other symptoms that occur at predictable levels of exertion and can be controlled with rest.

# DIFFERENT NAMES OF IHD

IHD is also known as coronary artery disease (often abbreviated as CAD) or “hardening of the arteries.”

Cholesterol plaque can build up in the arteries of the heart and cause “ischemia,” which means the heart is not getting enough blood flow and oxygen. If the plaque blocks an artery, a heart attack can result.

IHD also includes, but is not limited to, diagnoses such as acute, subacute, and old myocardial infarction (heart attack); atherosclerotic cardiovascular disease; coronary heart disease, coronary spasm and coronary bypass surgery; ischemic cardiomyopathy; myocardial ischemia, silent ischemia; and, stable and unstable and Prinzmetal’s angina (also known as variant angina).

Prinzmetal’s angina is usually secondary to large vessel spasm. Prinzmetal’s angina is a form of chest pain, pressure, or tightness caused by severe spasm of a coronary artery, causing ischemia of the heart wall. Unstable Prinzmetal’s angina occurs at rest, especially at night, often without a predictable pattern. This is in contrast to stable Prinzmetal’s angina, in which chest

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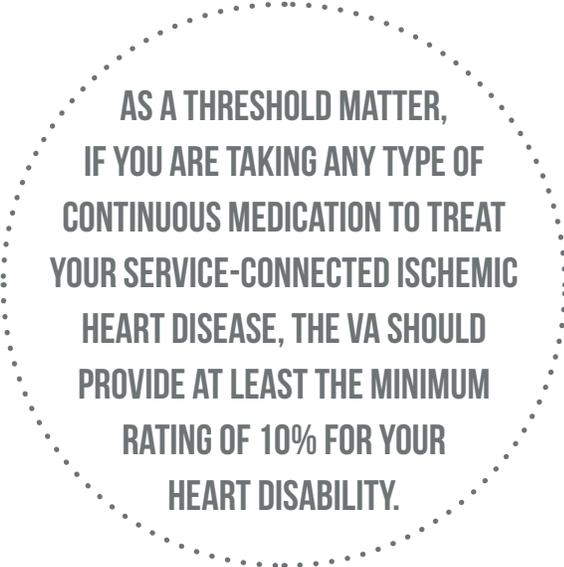


pain occurs in a predictable pattern during exertion or exercise. It is characterized by pain at rest and by ST segment elevation (with ECG testing), not depression, during the attack.

Echocardiogram – ECG stands for electrocardiograph or electrocardiogram. An electrocardiograph is a machine that records electrical impulses of your heart on a strip of paper called an electrocardiogram or a tracing. An ECG may be done while you are resting or exercising. Abnormalities on ECG tracing may indicate that your heart is not getting as much oxygen it needs (ischemia), or other abnormalities such as abnormal heart rhythm.

Myocardial ischemia, and even myocardial infarction, can occur without perception of pain or any other symptoms; when this happens, it is called silent ischemia. Pain sensitivity may be altered by a variety of diseases, most notably diabetes mellitus and other neuropathic disorders. Threshold of pain also varies by individuals. Silent ischemia often occurs in individuals with documented past heart attacks or established angina without prior heart attacks that do not have chest pain on an exercise stress test, but have a positive test with ischemic abnormalities on ECG or other appropriate medically acceptable imaging.

Ischemic cardiomyopathy is a term used to describe patients whose hearts can no longer pump enough blood to the rest of their bodies due to coronary artery disease. Cardiomyopathy is a disease of the heart muscle. Ischemic cardiomyopathy is a common cause of heart failure, and in some instances, heart rhythm is disturbed, leading to irregular heartbeats. It is the most common type of cardiomyopathy in the United States. In ischemic cardiomyopathy, the predominantly presenting symptoms reflect low cardiac output and heart failure with pulmonary congestion also known as congestive heart failure (CHF).



**AS A THRESHOLD MATTER, IF YOU ARE TAKING ANY TYPE OF CONTINUOUS MEDICATION TO TREAT YOUR SERVICE-CONNECTED ISCHEMIC HEART DISEASE, THE VA SHOULD PROVIDE AT LEAST THE MINIMUM RATING OF 10% FOR YOUR HEART DISABILITY.**



## VA RATING FOR IHD

For purposes of establishing service connection, VA interprets IHD, as referred to in the regulation, as encompassing any atherosclerotic heart disease resulting in clinically significant ischemia or requiring coronary revascularization. The most common type of revascularization procedure is Coronary Artery Bypass Grafting, sometimes called CABG (“cabbage”). PTCA (percutaneous transluminal coronary angioplasty), pacemaker implantation and heart transplant are others.

IHD pertains only to conditions that directly affect the muscles of the heart. The accepted medical definition of IHD does not extend to other conditions, such as hypertension, peripheral artery disease, and stroke that do not directly affect the muscles of the heart.

It is important to know what kinds of information the VA needs to have in order to assign the proper disability rating for your disease.

As a threshold matter, if you are taking any type of continuous medication to treat your service-connected ischemic heart disease, the VA should provide at least the minimum rating of 10% for your heart disability. Make sure, then, that the VA is aware of any heart medications you have been prescribed by your non-VA doctors.

**THE MOST COMMON TYPE OF REVASCLARIZATION PROCEDURE IS CORONARY ARTERY BYPASS GRAFTING, SOMETIMES CALLED CABG (“CABBAGE”).**

Not all heart disease qualifies for the presumption, but just because a veteran has not specifically been diagnosed with ischemic heart disease does not mean that he or she does not have the disease. The veteran may or may not have initial symptoms such as shortness of breath, unexplained fatigue, and heart palpitations, sensation of heartburn or indigestion, dizziness and/or lightheadedness. Vietnam-era veterans with heart disease should ask their doctors if their particular diagnosis is a form of ischemic heart disease.

## WHAT IS EJECTION FRACTION OR EF?

EF or ejection fraction measures the pumping ability of the heart. In medical physiological terms, EF represents the volumetric fraction of blood pumped out of the ventricle (heart) with each heart beat or cardiac cycle. It can be applied to

either the right ventricle which ejects via the pulmonary valve into the pulmonary circulation or the left ventricle (LV) which ejects via the aortic valve into the systemic circulation. Because the left ventricle is the heart's main pumping chamber, ejection fraction is usually measured only in the left ventricle (LVEF).

People with ischemic heart disease can have the symptoms and signs of ischemic cardiomyopathy that result in abnormal ejection fraction. Also, if a heart attack has damaged your heart, you may have an abnormal ejection fraction. A normal ejection fraction is around 55 - 75%. Many patients with cardiomyopathy have ejection fractions much less than this. People with ischemic heart disease can have the symptoms and signs of ischemic cardiomyopathy even when their ejection fraction is normal or near normal. This is because the heart does not fully relax (impaired filling). It is sometimes called "diastolic heart failure" or "heart failure with preserved ejection fraction."



**FOR VA COMPENSATION PURPOSES, THE LEVELS OF DISABILITY RATINGS FOR THE HEART ARE BASED ON YOUR SYMPTOMS AT VARIOUS LEVELS OF EXERTION.**



Tests used to measure ejection fraction include:

**MUGA scan** - A multigated acquisition scan (also called equilibrium radionuclide angiogram or blood pool scan) is a noninvasive diagnostic test used to evaluate the pumping function of the ventricles (lower chambers of the heart). The MUGA scan is a highly accurate test used to determine the heart's pumping function. This test calculates your ejection fraction, a measurement of how well your heart pumps with each beat.

**CTA scan** - A coronary computed tomography angiogram (CTA) uses advanced CT technology, along with intravenous (IV) contrast material (dye), to obtain high-resolution, three-dimensional pictures of the moving heart and great vessels. CTA is also called multi-slice computed tomography (MSCT), cardiac CT or cardiac CAT. The images obtained through testing enable physicians to determine whether plaque or calcium deposits are present in the artery walls.

CTA is used as a noninvasive method for detecting blockages in the coronary arteries.

Cardiac catheterization – assesses coronary arterial lumen diameter and the nature and location of obstructive lesions. It is also used to obtain the ejection fraction values.

## WHAT ARE METS?

MET means “metabolic equivalent of task.” It is sometimes simply called “metabolic equivalent.” One MET is the oxygen consumed by the individual at rest. In other words, a MET is a unit of energy expenditure that is based on oxygen consumption. METs allow exercise capacity to be standardized, so that a given physical performance on a cardiac exercise test indicates a certain level of fitness.



## HOW CAN YOU TEST FOR METS OR ESTIMATE THEM?

The most common test to determine METs is a Treadmill Stress Testing (TST, TMST). Other names for exercise tests include: Exercise Tolerance Test (ETT), Cardiac Stress Testing, Graded Exercise Test (GXT), and Exercise Electrocardiography.

Cardiologists are able to interpret the results of exercise stress tests in terms of METs in order to estimate the maximum safe work capacity of an individual with a heart condition. During an exercise stress test, you perform physical activity and record how your cardiovascular system responds. Exercise tests usually involve walking on a treadmill or other forms of exercise, such as an exercise bicycle or an

arm exercise machine. Exercise testing may be done for various reasons; such as to evaluate the severity of your coronary artery disease or to evaluate your process after a cardiac procedure or an acute event, like a heart attack. Exercise stress testing is the most widely used testing for identifying the presence of myocardial ischemia and for estimating maximal aerobic capacity (usually expressed in METs). Exercise tests may also be performed using echocardiography to detect stress-induced ischemia and left ventricular dysfunction.

For VA compensation purposes, the levels of disability ratings for the heart are based on your symptoms at various levels of exertion. Every level of exercise is assigned a range of METs; the higher the level of exertion, the higher the METs number. In assigning a rating for heart disease, the VA specifically looks at what range of METs causes you to have certain symptoms.



The symptoms that the VA is looking for are dyspnea (shortness of breath), fatigue, angina (chest pain), dizziness, or syncope (fainting). You need not have all of these symptoms to qualify for a particular rating, but it is important to know what the possible symptoms are so that you can inform your doctors, and the VA, if you are having these symptoms.

A minimum rating of 10% is appropriate where the veteran experiences these symptoms after doing activities such as jogging, biking or climbing stairs quickly (a level of 7-10 METs).

A higher rating of 30% is warranted where the veteran experiences the above symptoms at a level of 5-7 METs. This level of activity would include

heavy yard work such as digging or mowing with a push mower and would also include recreational activities such as golfing without a cart. The 30% rating would also be appropriate where the veteran has certain test results on an ECG, echocardiogram, or X-ray. So, again, it is important to make sure that the VA is aware of these tests if you have had them performed by a non-VA doctor.

A higher rating of 60% is assigned where the veteran experiences heart symptoms at a less stringent level of exercise such as brisk walking or light yard work including weeding or mowing the lawn with a power mower (a level of 3-5 METs). A 60% rating would also be appropriate for a veteran who has had more than one episode of acute congestive heart failure in the past year.

Finally, a total rating of 100% would be the appropriate rating where the veteran experiences the symptoms of heart disease at a minimal level of exercise such as slow walking for one or two blocks, showering, dressing or eating (1-3 METs). The 100% rating would also be assigned to a veteran who has chronic congestive heart failure (CHF).

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Another factor the VA will consider, outside the symptoms the veteran is experiencing, is whether the veteran has had any procedures performed on his heart which might qualify him or her for a higher rating, at least temporarily. Procedures such as heart valve replacement, coronary bypass surgery, cardiac transplant surgery, or implantation of a pacemaker require the VA to assign a temporary 100% disability rating for a period of months or sometimes indefinitely.

Finally, as with rating most disabilities, the VA must also consider whether the veteran's heart disease prevents him or her from maintaining employment. Knowing the symptoms of heart disease allows you to keep your doctors informed if you are having these symptoms. In addition, if your doctor is aware of your symptoms and documents them in your medical records, this makes it easier for the VA to assign the proper rating for your disability.

## AGENT ORANGE AND IHD

From 1962 to 1975, US military sprayed herbicides over Vietnam to strip the thick jungle canopy that could conceal opposition forces, to destroy crops that those forces might depend on, and to clear tall grasses and bushes from the perimeters of US base camps and outlying fire-support bases. Because of continuing uncertainty about the long-term health effects of the sprayed herbicides on Vietnam veterans, Congress passed the Agent Orange Act of 1991. The legislation directed the Secretary of Veteran Affairs to contract an independent organization, the Institute of Medicine (IOM) of the National Academies, to perform a comprehensive evaluation of scientific and medical information regarding the health effects of exposure to Agent Orange and other herbicides used in Vietnam.



The IOM concluded in its report, “Veterans and Agent Orange: Update 2008”, released July 24, 2009, that there is “suggestive but limited evidence that exposure to Agent Orange and other herbicides used during the Vietnam War is associated with an increased chance of developing ischemic heart disease.” The report also linked association with exposure to Agent Orange and Parkinson’s disease, hairy cell leukemia, and all other chronic B-cell leukemias.

As a result, VA recognized ischemic heart disease as associated with exposure to Agent Orange or other herbicides during military service. VA’s final regulation recognizing this association took effect on October 30, 2010.

The VA regulations mandate that any veteran who served in Vietnam between 1962 and 1975, or any veteran who served in Korea between 1968 and 1971 (Korean demilitarized zone (DMZ)) is presumed to have been exposed to Agent Orange.

In addition to IHD, the VA has identified a list of diseases which it accepts as having

been caused by Agent Orange. If a veteran who has been exposed is affected by one of these diseases, it is presumed to have been caused by their exposure to Agent Orange and will, then, be considered service connected.

## PROVING EXPOSURE TO AO - PRESUMPTION VS. DIRECT EXPOSURE

Veterans who develop ischemic heart disease and were exposed to Agent Orange or other herbicides during military service do not have to prove a connection between their disease and military service to be eligible to receive VA disability compensation.

The rules require the VA to presume that if a veteran served in Vietnam or along the Korean DMZ during a certain time period, the veteran was exposed. Therefore, the



requirement is to show that the veteran served at least one minute in Vietnam during the Vietnam era (January 9, 1962 to May 7, 1975) or along the Korean DMZ between April 1, 1968 and August 31, 1971. (Of note, some Thailand veterans who served on the perimeter of their bases during the Vietnam era are now presumed to have been exposed to Agent Orange.)



The presumption of Agent Orange exposure to veterans who served along the Korean DMZ became effective February 24, 2011. Prior to February 24, 2011, if the VA determined that a veteran served along the Korean DMZ between April 1968 and July 1969, it would not concede that the veteran was actually exposed to Agent Orange.

Veterans satisfy the Vietnam service requirement if they can prove they set foot on land in Vietnam or were on a ship that operated on the inland waterways of Vietnam, operated in Vietnam's close coastal

waters, and had crew members who went ashore, or docked in Vietnam (Brown Water veterans), regardless of the time spent there. For example, during the Vietnam War many veterans had permanent duty stations in countries neighboring Vietnam and briefly visited Vietnam for reasons such as picking up and dropping off soldiers, temporary duty, and short missions. Other veterans were onboard airplanes that landed in Vietnam while en route to another destination. Other veterans were on ships that conducted brief missions on the inland waterways of Vietnam or docked in the country for supplies. However, flying over Vietnam in an aircraft, without landing in Vietnam, does not qualify as service in Vietnam.

Importantly, so long as the veteran was exposed to Agent Orange (either directly or presumptively), he need not have been diagnosed with ischemic heart disease within any certain time frame. In other words, if a veteran served in Vietnam in 1969 and develops ischemic heart disease forty years later in 2009, he is still entitled to service connection for his disease. In addition, although there are other risk factors for ischemic heart disease, such as those stated earlier, if the veteran has been exposed to Agent Orange, the veteran is entitled to a presumption of service connection even if he or she has those other risk factors.

Blue Water veterans or veterans who were exposed in other places (like Subic Bay, Philippines) have to show direct service connection. For example, a veteran could show that he/she was on a boat (or a dock in Subic Bay) with a leaking barrel of Agent

Orange and that the substance got on his skin.

Furthermore, surviving spouses, dependent children and dependent parents of veterans who were exposed to herbicides during military service and died as the result of ischemic heart disease may be eligible for survivors' benefits.

In addition to new claims for ischemic heart disease, the VA must also reopen and re-adjudicate the claims of Vietnam-era veterans who applied for compensation for heart disease prior to the change in the VA regulations. The veteran could, then, be entitled to an effective date all the way back to their earlier claim.

Keep in mind that medical research is always moving forward and discovering new links between Agent Orange and other illnesses and diseases. Considering this, veterans should be aware that just because their particular illness or disease has not yet been recognized as being related to Agent Orange does not mean that it will not be recognized at some point in the future. If the veteran feels that there is a link, it is worth filing the claim. The claim may initially be denied, but if the VA then later recognizes the veteran's disability as connected to Agent Orange, he could be entitled to an effective date as of the date he filed his claim.



# ABOUT THE AUTHORS



Mr. Hill attended the University of Florida and earned his Bachelor of Arts degree in Spanish in 2002. He was elected into Phi Beta Kappa and graduated Cum Laude. He attended law school at the University of Florida and was awarded the book award in Trial Practice. He earned his law degree in 2005. Before attending the University of Florida Mr. Hill spent a year in Uruguay where he became fluent in Spanish. He now combines his linguistic skills with his legal talents to help our clients with their claims.

After graduating law school, Mr. Hill was a Judicial Law Clerk to The Honorable Anne C. Conway, U.S. District Court for the Middle District of Florida. While working for Judge Conway, Mr. Hill drafted orders, researched complex legal issues, and attended trials and hearings. Mr. Hill also assisted Judge Conway when she sat by designation with the Eleventh Circuit Court of Appeals in Atlanta, Georgia.

Mr. Hill focuses his practice on representing the disabled. He is a member of the Florida Bar and the Washington D.C. Bar. He is licensed to practice before the United States District Court in and for the Middle District of Florida, as well as the United States Court of Appeals for Veterans Claims. He represents the disabled and their dependents across the nation.

In addition to representing the disabled, Mr. Hill is a recognized authority on VA law. He serves on the board of directors of the National Organization of Veterans Advocates (NOVA). Mr. Hill is asked to give national presentations on VA disability compensation.



Brenda Duplantis has been helping clients at Hill & Ponton with disability claims since 1991. Duplantis earned an Associate in Arts degree from Valencia Community College, Orlando, Florida. She has also studied Industrial Engineering at the University of Central Florida, Orlando, Florida.

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She is a certified yoga teacher and during her spare time she enjoys volunteering at schools and non-profit organizations teaching and advocating the benefits of Lymphatic Yoga.