IN THE UNITED STATES COURT
OF APPEALS FOR VETERANS CLAIMS

BILLY D. MCCARROLL Appellant	)	
vs.	)	Vet. App. No. 14-2345
ROBERT A. MCDONALD, Secretary of Veterans Affairs, Appellee	)	

NOTIFICATION OF SUPPLEMENTAL AUTHORITY

Pursuant to Rule 30(b), Appellant, Billy D. McCarroll, wishes to inform the Court and Appellee of new authority which has come to his attention and which may be relevant to his case. In this case, Mr. McCarroll cited to language from VA's Adjudication and Procedures Manual discussing what types of evidence are pertinent for fulfilling the predominant history criterion for a compensable rating under 38 C.F.R. § 4.104 (2015) (diagnostic code 7101) (*see* Apa. Open Brief at 7-8 (citing VA ADJUDICATION PROCEDURES MANUAL REWRITE (M21-1MR), pt. III, subpt. iv, ch 4, § E-20(e))). Since filing his reply brief, the undersigned counsel has become aware of updates to these Manual provisions which add the following language regarding "considering a *history* of predominant blood pressure for the purposes of a 10 percent evaluation":

- only consider blood pressure readings obtained when the Veteran was undergoing a diagnostic evaluation for hypertension, and

- do not consider other clinical records documenting treatment prior to the diagnostic evaluation for hypertension.

See VA ADJUDICATION PROCEDURES MANUAL (M21-1), pt. III, subpt. iv, ch 4, § E-1(e) (in effect as of November 10, 2015) (emphasis in original) (attached as Exhibit A). The language quoted in the opening brief still remains in the current version. *Id.* Accordingly, the Veteran notifies the Court of supplemental authority which may be pertinent to the instant case.

Respectfully submitted,
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EXHIBIT A.

Section E. Cardiovascular System Conditions

Overview

In This Section This section contains the following topics:

Topic	Topic Name
1	Heart Conditions and Hypertensive Vascular Disease
2	Residuals of Cold Injuries

1. Heart Conditions and Hypertensive Vascular Disease

Introduction

This topic contains information about heart conditions, including

- definitions of hypertension and isolated systolic hypertension
- blood pressure readings required for service connection (SC)
- the multiple blood pressure readings confirmation requirement
- considering a diagnosis of pre-hypertension
- considering predominant blood pressure in evaluations of hypertensive vascular disease
- considering the long term effects of hypertension
- definition of arteriosclerotic heart disease
- documentation required to support a diagnosis of arteriosclerotic heart disease
- requirement for documentation of cardiac hypertrophy, dilatation, or need for continuous medication
- definition of metabolic equivalent (MET)
- METs requirements and exceptions
- considering estimated METs
- impact of non-service-connected (NSC) conditions on the evaluation of METs
- granting SC for arteriosclerotic manifestations due to hypertension
- effective dates of arteriosclerotic manifestations granted secondary to hypertension
- manifestations of advanced arteriosclerotic disease in service
- separately evaluating hypertension
- effects of rheumatic heart disease
- evaluating rheumatic heart disease coexisting with hypertensive or arteriosclerotic heart disease
- considering cardiovascular conditions subsequent to amputation
- definition of congenital heart defects, and
- using left ventricular ejection fraction (LVEF) ranges for evaluations of cardiovascular disorders.

Change Date

November 10, 2015

a. Definitions: Hypertension and Isolated Systolic Hypertension

Two types of hypertensive vascular disease are defined in 38 CFR 4.104, Diagnostic Code (DC) 7101, Note 1.

Hypertension means elevated diastolic blood pressure is predominantly 90mm or greater.

Isolated systolic hypertension means that systolic blood pressure is predominantly 160mm or greater with a diastolic blood pressure of less than 90mm.

Note: Use of the term "hypertension" in reports or in VA guidance will most often be used as a synonym for any type of hypertensive vascular disease.

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b. Blood Pressure Readings Required for SC

Subject to the exception below, service connection (SC) for hypertensive vascular disease requires current blood pressure readings (obtained during the claim period) which meet the regulatory definition of either

- hypertension, or
- isolated systolic hypertension.

Exception: Current readings meeting the regulatory standards for the definitions above *are not required* if

- the competent evidence shows a diagnosis of hypertension or isolated systolic hypertension, currently controlled by (or asymptomatic with) medication, *and*
- a past competent diagnosis was made
- in service
- based on manifestation of blood pressure readings to a compensable degree within the presumptive period as provided in 38 CFR 3.307 and 38 CFR 3.309(a), or
- secondary to a service-connected (SC) disability.

Notes:

- When SC is established based on the exception above (where current readings do not meet the regulatory definitions), the disability percentage will be either 0 percent or 10 percent, depending on whether or not the predominant diastolic pressure was 100 or more before symptoms were controlled with medication as provided in 38 CFR 4.104, DC 7101.
- A disability first clearly diagnosed after service can be SC under 38 CFR 3.303(d) when all the evidence, including that pertinent to service, establishes that the disease was incurred in service.

References: For more information on

- the concept of competent evidence and policies on evaluating the competency of evidence, see M21-1, Part III, Subpart iv, 5.
- the multiple blood pressure readings confirmation requirement see, M21-1, Part III, Subpart iv, 4.E.1.c
- considering a diagnosis of pre-hypertension, see M21-1, Part III, Subpart iv, 4.E.1.d, and
- considering predominant blood pressure readings in evaluation of hypertensive vascular disease, see M21-1, Part III, Subpart iv, 4.E.1.e.

c. The Multiple Blood Pressure Readings Confirmation Requirement

In addition to the definitional requirements for a diagnosis of hypertension or isolated systolic hypertension 38 CFR 4.104, DC 7101, Note 1 provides a second criterion that must be met for a diagnosis to be acceptable.

Subject to the exceptions below, a diagnosis of hypertension (or isolated systolic hypertension) must be ***confirmed by blood pressure readings taken two or more times on at least three different days***.

The rulemaking for the regulation stated that the purpose of this requirement, was to "assure that the existence of hypertension is not conceded based solely on readings taken on a single, perhaps unrepresentative, day."

Exceptions:

- In a claim for reevaluation of SC hypertension, readings on multiple days are not required. The policy, reflected in the *Hypertension* Disability Benefits Questionnaire (DBQ), is that where hypertension has been previously diagnosed, the examiner is only required to take three blood pressure readings on the day of examination.
- Similarly, multiple confirmatory readings are not required when there is a past diagnosis with hypertensive vascular disease currently controlled on medication as provided in M21-1, Part III, Subpart iv, 4.E.1.b.
- Note 1 in 38 CFR 4.104, DC 7101 *does not require* that a diagnosis of either type of hypertensive vascular disease *in service treatment records* (STRs) have been confirmed by readings taken two or more times on each of three different days for the purposes of in-service incurrence.

Important: The decision maker must critically evaluate the evidence to ensure the in-service diagnosis was based on blood pressure readings in accordance with 38 CFR 4.104, DC 7101 and M21-1, Part III, Subpart iv, 4.E.1.b in claims for SC for hypertension where

- hypertension is currently diagnosed, and
- controlled with medication.

If the evidence is unclear, medical clarification and/or a medical opinion may be warranted.

References: For more information on

- evaluating evidence and making a decision, see M21-1, Part III, Subpart iv, 5, and
- requesting medical examinations and medical opinions, see
  – M21-1, Part I, 1.C.3, and
  – M21-1, Part III, Subpart iv, 3.A.

d. Considering a Diagnosis of Pre-Hypertension

Pre-hypertension is generally defined as systolic pressure between 120mm and 139mm and diastolic pressure from 80mm to 89mm.

Pre-hypertension is ***not*** a disability for VA purposes.

If the VA examination (or evidence used in lieu of a VA examination) contains only a diagnosis of pre-hypertension based on readings that do not meet the definition of hypertension or isolated systolic hypertension, do ***not***

- seek clarification, or
- grant SC for hypertension based on the diagnosis.

Exception: Clarification *may* be required if a current diagnosis of "pre-hypertension" is made where readings exist in the record that meet the regulatory definition of hypertension. This may indicate

- conflicting evidence, and/or
- equivocation by the medical professional on diagnosis or chronicity (particularly if, for example, the facts show a predominance of readings not meeting the regulatory definition of hypertension).

References: For more information on

- the definitions of hypertension and isolated systolic hypertension, see M21-1, Part III, Subpart iv, 4.E.1.a
- considering conflicting evidence, see
  – M21-1, Part III, Subpart iv, 5.7.a, and
  – M21-1, Part III, Subpart iv, 5.8.b, and
- handling examination reports insufficient for rating purposes, see M21-1, Part III, Subpart iv, 3.D.3.

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e. Considering Predominant Blood Pressure in Evaluations of Hypertensive Vascular Disease

Every level of evaluation specified under 38 CFR 4.104, DC 7101 requires consideration of the ***predominant*** (most common or prevailing) blood pressure. Blood pressure may fluctuate depending on a number of variables and disability evaluations must be based on valid evidence demonstrating representative disability.

Generally the regulation requires analysis of predominant *current* readings—readings from the period during which an effective date can be assigned.

When current predominant blood pressure readings are non-compensable, a 10 percent evaluation may be assigned if

- continuous medication is required for blood pressure control, and
- past diastolic pressure (before medication was prescribed) was predominantly 100 or greater.

Important: Do not assign a 10 percent evaluation based upon a showing of one of the two conjunctive criteria above by invoking the benefit of the doubt rule (38 CFR 3.102 and 38 CFR 4.3 or 38 CFR 4.7). When either criterion is simply not shown (for example, the claimant is using prescribed anti-hypertensive medication but diastolic pressure has never been predominantly 100 or greater) the evidence is not in relative equipoise on whether a 10 percent evaluation is appropriate and the disability picture does not more nearly approximate the 10 percent criteria.

However, 38 CFR 3.102, 38 CFR 4.3, and 38 CFR 4.7 may be applicable to whether the evidence supports each criterion, namely

- whether diastolic readings before were predominantly 100 or higher or
- whether continuous medication is required for control of blood pressure.

Use the table below to assist in analyzing predominant blood pressure.

When ...	**Then ...**
determining which diastolic or systolic pressure range is predominant	• make note of the competent and credible evidence of diastolic and systolic readings (see M21-1, Part III, Subpart iv, 5) • determine which readings correspond with the various levels of evaluation specified in the diagnostic criteria (for example diastolic readings “100 or more” or “110 or more”), and • subject to the notes below, conclude that the range with the most qualifying readings is the predominant blood pressure. ***Notes***: • If there is a relative balance of readings supporting two levels of evaluation for the same time frame, apply 38 CFR 3.102, 38 CFR 4.3 and 38 CFR 4.7. ***Example***: If there are six diastolic measurements from one doctor in the 100 to 109 range (108, 106, 108, 104, 106, 100) in June, and six diastolic readings from another doctor in the 110 to 119 (110, 110, 114, 110, 112, 110) the same month, give the benefit of the doubt and assign the higher 20 percent evaluation. • If during the evaluation period more than one blood pressure range is supported for at least a month stage the evaluation in

	accordance with the facts. ***Example***: Use the readings above but assume second doctor's readings were taken in November. Assign a 10 percent evaluation based on the June results from the date of claim or date entitlement arose, whichever is the later; stage to 20 percent as of the date of the first readings from November.
considering predominant blood pressure before control with medication	• start with the more current of – the readings taken as part of the diagnostic workup period leading to the diagnosis of hypertension if medication was prescribed at that time, or – the readings taken as part of a subsequent diagnostic workup period leading to the prescription of medication. ***Explanation***: These are the readings pertinent to whether hypertensive readings were predominantly in the compensable range before hypertension was brought under control with medication. • Do not consider – normal blood pressure readings taken long before the diagnosis of hypertensive vascular disease was made, or – minimally hypertensive readings prior to active medical surveillance or observation leading to the prescription of medication. ***Explanation***: These are not pertinent and will impermissibly skew the analysis of the predominant blood pressure.
considering a *history* of predominant blood pressure for the purposes of a 10 percent evaluation under 38 CFR 4.104, DC 7101	• only consider blood pressure readings obtained when the Veteran was undergoing a diagnostic evaluation for hypertension, and • do not consider other clinical records documenting treatment prior to the diagnostic evaluation for hypertension.

f. Considering Long Term Effects of Hypertension

Hypertension may

- exist for years without causing symptoms
- so increase the cardiac load as to result in hypertrophy of the cardiac muscle or cardiac dilation and decompensation, if sufficiently severe, and
- cause arteriosclerosis of uneven distribution that often involves the vessels of one organ to a greater degree than those of the rest of the body, in cases where hypertension is long-standing.

If the hypertension is of sufficient degree to cause significant impairment of circulation to the organ, symptoms will manifest in accordance with the

- organ involved, and
- degree of impairment.

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g. Definition: Arteriosclerotic Heart Disease

Arteriosclerotic heart disease, also diagnosed as ischemic heart disease (IHD) and coronary artery disease (CAD), is a disease of the heart caused by the diminution of blood supply to the heart muscle due to narrowing of the cavity of one or both coronary arteries due to the accumulation of fatty material on the inner lining of the arterial wall.

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h. Documentation Required to Support a Diagnosis of Arteriosclerotic Heart Disease

For rating purposes, a diagnosis of arteriosclerotic heart disease must be documented by objective testing. Objective tests include, but are not limited to

- electrocardiogram (ECG or EKG) findings
- treadmill exercise testing (with or without a thallium scan),or
- cardiac catheterization and angiography.

Note: The actual test results *do not* need to be of record if the evidence indicates that the diagnosis was rendered by a competent medical professional *and* based on the results of an objective test.

Important: Symptoms of chest pain alone are ***not*** sufficient to support a clinical diagnosis of arteriosclerotic heart disease for rating purposes. As chest pain is a symptom of multiple disabilities, the diagnosis arteriosclerotic heart disease *must* be supported with objective documentation.

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i. Requirement for Documentation of Cardiac Hypertrophy,

According to 38 CFR 4.100(a), objective evidence ***must*** show the following information for rating purposes when evaluating the cardiovascular conditions listed under 38 CFR 4.104, DCs 7000 - 7007, 7011, and 7015 - 7020

- whether cardiac hypertrophy is present

Dilatation, or Need for Continuous Medication

- whether cardiac dilatation is present, and
- whether continuous medication is needed.

Note: Cardiac hypertrophy and/or dilatation must be documented by ECG, echocardiogram, or X-ray.

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j. Definition: MET

One ***Metabolic Equivalent*** (MET) is the energy cost of standing quietly at rest and represents an oxygen uptake of 3.5 milliliters per kilogram of body weight per minute.

The level of METs at which dyspnea, fatigue, angina, dizziness, or syncope develops is required for evaluation of cardiovascular conditions under the DCs listed in M21-1, Part III, Subpart iv, 4.E.1.k.

References: For more information on

- METs requirements, see Note 2 to 38 CFR 4.104, and
- considering estimated METs, see M21-1, Part III, Subpart iv, 4.E.1.l.

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k. METs Requirements and Exceptions

METs testing is required to evaluate cardiovascular conditions under 38 CFR 4.104, DCs 7000 - 7007, 7011, and 7015 - 7020, ***except*** when

- there is a medical contraindication
- left ventricular ejection fraction (LVEF) is 50 percent or less
- chronic congestive heart failure is present
- there has been more than one episode of congestive heart failure in the past year, or
- a 100 percent evaluation can be assigned on another basis.

Important: If LVEF testing is not of record, evaluate on alternative criteria unless the examiner states that LVEF test is necessary because the available medical evidence does not sufficiently reflect the Veteran's cardiovascular disability.

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l. Considering Estimated METs

When METs cannot be obtained through exercise testing for medical reasons, the examiner may provide an estimation of the METs.

Important: The examiner must state that the estimated METs are due solely to an SC cardiovascular disability.

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m. Impact of NSC Conditions on

Non-service-connected (NSC) disabilities, such as a chronic respiratory condition or morbid obesity, may have an impact on METs results.

the Evaluation of METs

Use the following table to assist in evaluating cardiovascular disabilities when an NSC condition impacts METs results.

If the examiner…	And…	Then…
cannot determine METs attributable to an SC cardiovascular disability due to the effects of NSC conditions	states that LVEF testing renders a more accurate finding regarding cardiovascular manifestations alone	evaluate based on LVEF shown on examination.
cannot determine METs attributable to an SC cardiovascular disability due to the effects of NSC conditions	does not state that LVEF testing renders a more accurate finding regarding cardiovascular manifestations	resolve reasonable doubt in the Veteran's favor and evaluate based on the evidence that is most advantageous to the Veteran.

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n. Granting SC for Arteriosclerotic Manifestations Due to Hypertension

If additional arteriosclerotic manifestations are subsequently diagnosed in a Veteran with SC hypertension, grant SC on a secondary basis through the relationship to hypertension for any of the following

- cerebral arteriosclerosis or thrombosis with hemiplegia
- nephrosclerosis of the kidneys with impairment of renal function, or
- myocardial damage or coronary occlusion of the heart.

Important: A claim for benefits is required to adjudicate a secondary SC claim for any of the arteriosclerotic manifestations.

Notes:
- Do not address SC for the above-listed cardiovascular conditions through the relationship to the hypertension when a sympathetic reading of the claims does not show a claim for SC for a heart condition.
- Arteriosclerosis occurs with advancing age without preexisting hypertension, and may occur in some younger individuals who are predisposed to arterial changes.
- The existence of arteriosclerosis does not imply/indicate prior hypertension.

References: For more information on
- secondary SC, see M21-1, Part IV, Subpart ii, 2.B.5
- intent to file and informal claims, see M21-1, Part III, Subpart ii, 2.C.1
- reopened claims, see M21-1, Part III, Subpart ii, 2.D, and
- claims for increase, see M21-1, Part III, Subpart ii, 2. E.

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o. Effective Dates of Arteriosclerotic Manifestations Granted Secondary to Hypertension

The effective date of any grant of SC for arteriosclerotic manifestations secondary to hypertension is the date of claim or date entitlement arose, whichever is later.

Important: Arteriosclerotic manifestations are not considered a worsening of hypertension. Therefore ***do not apply***

- 38 CFR 3.400(o)(2) to allow an effective date prior to the date of claim, as this only applies to increases, or
- 38 CFR 3.157, in effect prior to March 24, 2015, to construe VA or uniformed services health care facility reports of examination or hospitalization from prior to that date as an earlier informal claim for an increased evaluation.

Neither of those regulations provides a basis for an effective date earlier than the default rule above.

References: For more information on

- secondary SC, see M21-1, Part IV, Subpart ii, 2.B.5
- effective dates, see 38 CFR 3.400, and
- claims based on reports of examination or hospitalization, see M21-1, Part III, Subpart ii, 2.C.6.

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p. Manifestations of Advanced Arteriosclerotic Disease in Service

When SC for a cardiovascular condition is claimed, the mere identification of arteriosclerotic disease upon routine examination early in service is *not* a basis for SC.

Manifestation of lesions or symptoms of chronic disease will establish pre-service existence under 38 CFR 3.303(c) if objective evidence shows manifestation

- from date of enlistment, or
- so close to enlistment that chronic disease could not have originated during service.

Important:

- An analysis of the presumption of soundness under 38 CFR 3.304 and the provisions on aggravation under 38 CFR 3.306 may be required.
- Grant SC for any sudden development during service of coronary occlusion or thrombosis whether or not these are manifestations of advanced long standing arteriosclerotic disease.

Note: Under 38 CFR 3.6(a), inactive duty for training qualifies as active service if an individual becomes disabled or dies from an acute myocardial infarction, a cardiac arrest, or a cerebrovascular accident occurring during such training.

q. Separately Evaluating Hypertension

Evaluate hypertension separately from hypertensive heart disease and other types of heart disease.

Evaluate hypertension due to aortic insufficiency or hyperthyroidism, which is usually the isolated systolic type, or the elevation of systolic or diastolic blood pressure due to nephritis, as part of the condition causing it rather than by a separate evaluation.

However, a separate evaluation for hypertension may be awarded when the sole renal disability is the absence of a kidney, or the requirement of regular dialysis.

Notes:
- The cause of hypertension is unknown in the vast majority of cases.
- Do not establish SC for hypertension if the evidence does not contain blood pressure readings as specified in 38 CFR 4.104, DC 7101, Note 1.

Reference: For more information on hypertension and nephritis, see 38 CFR 4.115.

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r. Effects of Rheumatic Heart Disease

Chronic rheumatic heart disease results from single or repeated attacks of rheumatic fever that produce valvular disease, manifested by

- rigidity and deformity of the cusps
- fusion of the commissures, or
- shortening and fusion of the chordae tendineae.

The earliest evidence of organic valvular disease is

- a significant murmur, and
- hemodynamically significant valvular lesions found on x-ray, fluoroscopy, and ECG study, since these reveal the earliest stages of specific chamber enlargement.

Note: Grant SC for an aortic valve insufficiency that manifests without other cause after an in-service case of rheumatic fever.

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s. Evaluating Rheumatic Heart Disease Coexisting With Hypertensive or

Accepted medical principles do ***not*** concede an etiological relationship between rheumatic heart disease and either hypertensive or arteriosclerotic heart disease. Therefore, do ***not*** extend secondary SC to systemic manifestations or arteriosclerosis in areas remote from the heart if the Veteran is SC for rheumatic heart disease.

Arteriosclerotic Heart Disease

If a Veteran who is SC for rheumatic heart disease develops hypertensive or arteriosclerotic heart disease after the applicable presumptive period following military discharge, request a medical opinion to determine which condition is causing the current signs and symptoms.

Note: If the examiner is unable to separate the effects of one type of heart disease from another, the effects must be rated together.

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t. Considering Cardiovascular Conditions Subsequent to Amputation

Grant SC on a secondary basis for the following conditions that develop subsequent to the SC amputation of one lower extremity at or above the knee, or SC amputations of both lower extremities at or above the ankles:

- IHD, or
- other cardiovascular disease, including hypertension.

References: For more information on
- proximate results or secondary conditions, see 38 CFR 3.310(b), and
- secondary SC, see M21-1, Part IV, Subpart ii, 2.B.5.

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u. Definition: Congenital Heart Defects

Congenital heart defects include common heart conditions due to prenatal influences, such as

- patent foramen ovale
- patent ductus arteriosus
- coarctation of the aorta, and
- intraventricular septal defect.

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v. Using LVEF for Evaluation of Cardiovascular Disorders

Many DCs in the schedule of ratings for the cardiovascular system (38 CFR 4.104), use LVEF as an evaluation criterion. These DCs are:

7000 Valvular heart disease (including rheumatic heart disease)
7001 Endocarditis
7002 Pericarditis
7003 Pericardial adhesions
7004 Syphilitic heart disease
7005 Arteriosclerotic heart disease (CAD)
7006 Myocardial infarction
7007 Hypertensive heart disease
7011 Ventricular arrhythmias (sustained)
7015 Atrioventricular block
7016 Heart valve replacement (prosthesis)
7017 Coronary bypass surgery
7019 Cardiac transplantation

7020 Cardiomyopathy

In each of these DCs, left ventricular dysfunction with LVEF of "less than 30 percent" is a basis for a 100 percent evaluation, whereas left ventricular dysfunction with LVEF of "30 percent to 50 percent" is a basis for a 60 percent evaluation.

Physicians may document the finding of LVEF percentage with a numerical range, rather than an exact number (for example, 50-55 percent). Under generally accepted medical standards this clinically represents a LVEF falling between the two numbers and not including the endpoints.

Refer to the following table for information on how to interpret LVEF ranges stated in medical reports when making decisions on evaluation of cardiovascular conditions.

If the ejection fraction range is...	**Then use the following option in the Evaluation Builder …**
25-30 percent (or lower)	"<30" The corresponding evaluation will be 100 percent. ***Explanation***: Under generally accepted medical conventions this range denotes an LVEF of less than 30 percent.
30-35 percent 35-40 percent 40-45 percent, ***or*** 45-50 percent	"30-50" The corresponding evaluation will be 60 percent. ***Explanation***: Under generally accepted medical conventions none of these ranges denotes an LVEF of less than 30 percent or greater than 50 percent.
50-55 percent (or higher)	">50" The corresponding evaluation will depend on alternate criteria. ***Explanation***: Under generally accepted medical conventions this range denotes an LVEF of greater than 50 percent without associated left ventricular dysfunction.

	Important: Do *not* assign a 60 percent evaluation *solely* on the basis of ejection fraction if this estimated range is provided in a report and the report is the only available evidence of ejection fraction.

Note This table provides general rating guidelines. Always follow guidance on concepts and principles on evaluation of evidence, and consider the reasonable doubt rule as appropriate.

References: For more information on

- the cardiovascular conditions listed in this block, see the Medical Electronic Performance Support System (EPSS).
- evaluation of evidence, see M21-1, Part III, Subpart iv, 5.
- application of the reasonable doubt rule, see M21-1, Part III, Subpart iv, 5.1.k, and
- clarification of medical reports, see
  – M21-1, Part III, Subpart iv, 5.4.c, and
  – M21-1, Part III, Subpart iv, 3.D.3.

2. Residuals of Cold Injuries

Introduction

This topic contains information about residuals of cold injury, including

- general effects of injury due to cold
- long-term effects of exposure to cold
- chronic effects of exposure to cold
- granting SC for residuals of cold injuries
- separate evaluations for residuals of cold injuries
- considering cold injuries incurred during the Chosin Reservoir Campaign, and
- granting SC for cold injuries incurred during the Chosin Reservoir Campaign.

Change Date

May 8, 2015

a. General Effects of Injury Due to Cold

Injury due to exposure to extremely cold temperatures causes structural and functional disturbances of

- small blood vessels
- cells
- nerves
- skin, and
- bone.

The physical effects of exposure may be acute or chronic, with immediate or latent manifestations.

Examples: Exposure to

- damp cold temperatures (around freezing) cause frostnip and immersion or trench foot.
- dry cold, or temperatures well below freezing, cause frostbite with, in severe cases, loss of body parts, such as fingers, toes, earlobes, or the tip of the nose.

b. Long-Term Effects of Exposure to Cold

The fact that the immediate effects of cold injury may have been characterized as "*acute*" or "*healed*" does not preclude development of disability at the original site of injury many years later.

c. Chronic

Veterans with a history of cold injury may experience the following signs and

Effects of Exposure to Cold

symptoms at the site of the original injury

- chronic fungal infection of the feet
- disturbances of nail growth
- hyperhidrosis
- chronic pain of the causalgia type
- abnormal skin color or thickness
- cold sensitization
- joint pain or stiffness
- Raynaud's phenomenon
- weakness of hands or feet
- night pain
- weak or fallen arches
- edema
- numbness
- paresthesias
- breakdown or ulceration of cold injury scars
- vascular insufficiency, indicated by edema, shiny, atrophic skin, or hair loss, and
- increased risk of developing conditions, such as
  – peripheral neuropathy
  – squamous cell carcinoma of the skin, at the site of the scar from a cold injury, or
  – arthritis or other bone abnormalities, such as osteoporosis, or subarticular punched-out lesions.

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d. Granting SC for Residuals of Cold Injuries

Grant SC for the residuals of cold injury if

- the cold injury was incurred during military service, and
- an intercurrent NSC cause cannot be determined.

Notes:

- The fact that an NSC systemic disease that could produce similar findings is present, or that other areas of the body not affected by cold injury have similar findings, does not necessarily preclude SC for residual conditions in the cold-injured areas.
- When considering the possibility of intercurrent cause, always resolve reasonable doubt in the Veteran's favor.

Reference: For more information on reasonable doubt, see 38 CFR 3.102.

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e. Separate Evaluations for

The following separately diagnosed residuals of cold injuries should be evaluated under the appropriate DC

Residuals of Cold Injuries

- amputations of fingers
- amputations of toes
- squamous cell carcinoma
- scars, and
- peripheral neuropathy.

All other disabilities separately diagnosed as the residual effect of a cold injury should be separately evaluated *unless* they are used to support an evaluation under 38 CFR 4.104, DC 7122. Examples of such disabilities include, but are not limited to

- Raynaud's phenomenon, and
- muscle atrophy.

Note: Separately evaluate each part (e.g., hand, foot, ear, nose) affected by cold injuries and then combine in accordance with 38 CFR 4.25 and 38 CFR 4.26.

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f. Considering Cold Injuries Incurred During the Chosin Reservoir Campaign

The Chosin Reservoir Campaign was conducted during the Korean War, October 1950 through December 1950, in temperatures of –20ºF or lower. Many participants in this campaign suffered from frostbite for which they received no treatment and, as a result, there may be no STRs to directly support their claims for frostbite.

If the Veteran's participation in the Chosin Reservoir Campaign is confirmed, concede exposure to extreme cold under the provisions of 38 U.S.C. 1154(a).

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g. Granting SC for Cold Injuries Incurred During the Chosin Reservoir Campaign

Grant SC under the provisions of 38 CFR 3.303(a) and 38 CFR 3.304(d) if

- the Veteran has a disability which is diagnosed as a residual of cold injury, and
- there are no other circumstances to which this disability may be attributed.
