

Ready Reckoner 30 – Cardiovascular Function

Table 23.265 CAD, and Hypertensive Heart Disease – Whole Person Impairment

Impairment Class and Severity of cardiovascular symptoms	Echocardiographic evidence of systolic and/or diastolic function	METS aerobic capacity	Maximum impairment 75%
Class 1: Person experiences fatigue, angina, and dyspnea during moderate-vigorous-physical exertion	Minimal left ventricular systolic dysfunction or diastolic dysfunction (EF $\geq 45\%$ -<55% or E=A)	≥ 3 METS to ≤ 6 METS	15%
Class 2: Person experiences fatigue, angina, and dyspnea during moderate-vigorous-physical exertion	Minimal left ventricular systolic dysfunction and diastolic dysfunction (EF $\geq 45\%$ -<55% and E=A)	≥ 3 METS to ≤ 6 METS	25%
Class 3: Person experiences fatigue, angina, and dyspnea during moderate physical exertion	Moderate left ventricular systolic dysfunction or diastolic dysfunction (EF $\geq 30\%$ -<45% or E=A)	<3 METS to ≥ 1.5 METS	37%
Class 4: Person experiences fatigue, angina, and dyspnea during moderate physical exertion	Moderate systolic and diastolic left ventricular dysfunction (EF $\geq 30\%$ -<45% and E=A)	<3 METS to ≥ 1.5 METS	50%

Class 5: Person experiences fatigue, angina, and dyspnea during minimal physical exertion and/or at rest	Severe systolic and diastolic left ventricular dysfunction (EF <30% and E<A)	<1.5 METS	75%
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Table 23.266 Cardiomyopathy - Whole Person Impairment – 75%

Impairment Class and Severity of Cardiovascular Symptoms	Nature of Intervention	Echocardiographic evidence of systolic and/or diastolic function	Maximum Impairment 75%
Class 1: Asymptomatic	Isolated dysrhythmia controlled under Guideline-Directed Medical Therapy - GDMT	Normal left ventricular function and diastolic function LVEF ≥55%-<70% or E>A	5%
Class 2: Palpitation	Isolated dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Normal left ventricular function and diastolic function LVEF ≥55%-<70% or E>A	10%

Class 3: Person experiences fatigue, angina, and dyspnea during moderate-vigorous-physical exertion, palpitation, missing of heartbeat, dizziness, sweating, anxiety	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Minimal left ventricular systolic dysfunction or diastolic dysfunction LVEF $\geq 45\%$ -<55% or E=A	15%
Class 4: Person experiences fatigue, angina, and dyspnea during moderate-vigorous-physical exertion, Palpitation, missing of heartbeat, dizziness, sweating, anxiety	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Minimal left ventricular systolic dysfunction and diastolic dysfunction LVEF $\geq 45\%$ -<55% and E=A	25%
Class 5: Person experiences fatigue, angina, and dyspnea during moderate physical exertion, palpitation, missing of heartbeat, dizziness, sweating, anxiety, dyspnea, chest pain, syncope	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Moderate left ventricular systolic dysfunction or diastolic dysfunction (EF $\geq 30\%$ -<45% or E=A)	37%
Class 6: Person experiences fatigue, angina, and dyspnea during moderate physical exertion, palpitation, missing of heartbeat, dizziness, sweating,	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Moderate systolic and diastolic left ventricular dysfunction (EF $\geq 30\%$ -<45% and E = A)	50%

anxiety, dyspnea, chest pain,

syncope

Class 7: Person experiences fatigue, angina, and dyspnea during minimal physical exertion and/or at rest, palpitation, missing of heartbeat, dizziness, sweating, anxiety, dyspnea, chest pain, syncope	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Severe systolic and diastolic left ventricular dysfunction (EF < 30% and E< A)	75%
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Table 23.267 Dysrhythmias – Whole Person Impairment 75%

Impairment Class and Severity of Cardiovascular Symptoms	Nature of Intervention	Echocardiographic evidence of systolic and/or diastolic function	Maximum Impairment 75%
Class 1: Asymptomatic	Isolated dysrhythmia controlled under Guideline-Directed Medical Therapy - GDMT	Normal left ventricular function and diastolic function LVEF ≥55%-<70% or E>A	5%
Class 2: Palpitation	Isolated dysrhythmia requiring or underwent	Normal left ventricular function and diastolic	10%

	implantation of pacemaker and/or AICD	function LVEF $\geq 55\%$ -<70% or E>A	
Class 3: Palpitation, missing of heartbeat, dizziness, sweating, anxiety	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Minimal left ventricular systolic dysfunction or diastolic dysfunction LVEF $\geq 45\%$ -<55% or E=A	15%
Class 4: Palpitation, missing of heartbeat, dizziness, sweating, anxiety	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Minimal left ventricular systolic dysfunction and diastolic dysfunction LVEF $\geq 45\%$ -<55% and E=A	25%
Class 5: Palpitation, missing of heartbeat, dizziness, sweating, anxiety, dyspnea, chest pain, syncope	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Moderate left ventricular systolic dysfunction or diastolic dysfunction (EF $\geq 30\%$ -<45% or E=A)	37%
Class 6: Palpitation, missing of heartbeat, dizziness, sweating, anxiety, dyspnea, chest pain, syncope	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Moderate systolic and diastolic left ventricular dysfunction (EF $\geq 30\%$ -<45% and E = A)	50%

Class 7: Palpitation, missing of heartbeat, dizziness, sweating, anxiety, dyspnea, chest pain, syncope	Dysrhythmia requiring or underwent implantation of pacemaker and/or AICD	Severe systolic and diastolic left ventricular dysfunction (EF < 30% and E< A)	75%
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Table 23.268 Valvular Heart Diseases - Whole Person Impairment – 75%

Impairment Class Symptoms	Size of Atrium/ Ventricle	Systolic and Diastolic Ventricular Function	Impairment Score
Class 1: Asymptomatic valvular heart disease	Normal size of atrium/ventricle	(1) Left ventricular systolic and diastolic function - Normal: EF: 55%-70% and E>A (2) Normal pulmonary artery pressure: 8-20 mm of Hg at rest, and normal right ventricular function	5%
Class 2: Symptomatic valvular heart	Mild enlargement of atrium/ventricle	(1) Minimal left ventricular systolic dysfunction EF: ≥45-<55% or minimal diastolic dysfunction: E=A	15%

disease -		and/or	
syncope		(2) Increased pulmonary artery pressure: >20 - ≤30 mm of Hg with normal right ventricular function	
Class 3:	Mild enlargement of	(1) Minimal left ventricular systolic dysfunction	25%
Symptomatic	atrium/ventricle	EF: ≥45-<55% and minimal diastolic dysfunction: E=A	
valvular heart disease -syncope		and/or	
		(2) Pulmonary hypertension: > 30 - ≤ 50 mm of Hg with normal right ventricular function	
Class 4:	Moderate	(1) Moderate left ventricular systolic dysfunction	37%
Symptomatic	enlargement of	EF: ≥30%-<45% or	
valvular heart disease -	atrium/ventricle	diastolic dysfunction: E=A	
syncope, angina, dyspnea		and/or	
		(2) Pulmonary hypertension: > 30 - ≤ 50 mm of Hg with minimal right ventricular dysfunction	
Class 5:	Moderate	(1) Moderate left ventricular systolic dysfunction	50%
Symptomatic	enlargement of	EF: ≥30%-<45% and diastolic dysfunction: E=A	
valvular heart disease -	atrium/ventricle	and/or	
		(2) Pulmonary hypertension: >30 -	

syncope, angina, dyspnea		≤50 mm of Hg with moderate right ventricular dysfunction	
Class 6:	Severe enlargement	(1) Severe left ventricular systolic	75%
Symptomatic	of atrium/ventricle	dysfunction	
valvular heart		EF: <30% and diastolic	
disease -		dysfunction: E<A	
syncope, angina, dyspnea, decreased exercise tolerance		and/or (2) Pulmonary hypertension: >50 mm of Hg with severe right ventricular dysfunction	

Table 23.269 Peripheral Arterial Disease Upper/Lower Extremities – Whole Person Impairment 10%

Impairment Class	Clinical Symptoms and/or Signs	Clinical Tools	Maximum Impairment 10%
Class 1	Asymptomatic	Ankle-brachial index: 0.71 - ≤0.90	0%
Class 2	Raynaud's Phenomena: Triphasic colour changes, triggered by exposure to cold etc.	-	5%

Class 2	Elicits claudication pain on 6 minutes' walk test, and refractory to medical management	Ankle-brachial index: 0.71 - ≤0.90	5%
Class 3	Resting pain due to acute limb ischemia Contraindication for endovascular interventions and revascularization surgery due to medical reasons	Ankle-brachial index: 0.41 - ≤0.70	10%
Class 4	Gangrene & amputation	Ankle-brachial index: ≤0.40	According to level of amputation

Table 23.270 Varicose Veins - Upper/Lower Extremities – Whole Person Impairment 5%

Impairment Class	Clinical Symptoms and/or Signs	Clinical Tools	Maximum Impairment 10%
Class 1	Asymptomatic varicose veins	Doppler ultrasound - Incompetent superficial veins	0%

Class 2	Varicose veins with pain, heaviness of the leg, muscle cramps, oedema	Doppler ultrasound - Incompetent superficial and deep veins	1%
Class 3	Varicose veins with pain, heaviness of the leg, muscle cramps, oedema and pigmentation with irritation of the skin	Doppler ultrasound - Incompetent superficial, deep and perforator veins	2.5%
Class 4	Varicose veins with chronic venous insufficiency and pain, heaviness of the leg, muscle cramps, oedema, pigmentation with irritation of the skin, lipodermatosclerosis, trophic changes, venous ulcer, and venous thrombosis	Doppler ultrasound - Incompetent superficial, deep, and perforator veins	5%

Table 23.271 Lymphedema - Upper/Lower Extremities – Whole Person Impairment 5%

Impairment Class	Clinical Symptoms and/or Signs	Maximum Impairment
Class 1	Swelling of arm and/or leg	1%

	Aching of swollen arm and/or leg	
Class 2	Swelling of arm and/or leg with disfigurement	1%
	Aching of swollen arm and/or leg	+
	Fibrosis of skin	Impairment score
	Limitation of ROM of joint	according to limitation of ROM of affected joint
Class 3	Swelling of arm and/or leg with disfigurement	2.5%
	Aching of swollen arm and/or leg	+
	Fibrosis of skin	Impairment score
	Limitation of ROM of joint	according to limitation of ROM of affected joint
	Recurrent cellulitis/lymphangitis	
Class 4	Swelling of arm and/or leg with disfigurement	5%
	Aching of swollen arm and/or leg	+
	Fibrosis of skin	Impairment score
	Limitation of ROM of joint	according to limitation of ROM of affected joint
	Recurrent cellulitis/lymphangitis	
	Chronic fissuring and ulceration	
	Amyloidosis	+
	Lymphangiosarcoma	Impairment score according to level of amputation if deemed necessary
