

## ASSESSMENT OF RISK FOR DIABETES RELATED COMPLICATIONS PREVENTION OF COMPLICATIONS -

- Maintain healthy blood glucose levels (HbA1c equal to or less than 55mmol/L or as recommended)
- Maintain healthy blood pressure 130/80 mmHg or as recommended
- Maintain healthy lipid/cholesterol levels
- Quit smoking

TESTS FOR ASSESSING RISK results outside the recommended range become a 'risk factor'		Low Risk	High Risk = 3 or more risk factors Moderate Risk = 2 risk factors
<b>HbA1c</b>	A measure of the amount of glucose that is attached to haemoglobin which is found in oxygen carrying red blood cells. The more glucose in the blood, the more glucose attaches to haemoglobin. It stays attached for the life of the red blood cell, which is around 3 months. This makes the HbA1c a good indication of blood glucose over the past 3 months. (This is not a finger prick test)	<b>50 – 55 mmol / mol</b>	<b>&gt;55 mmol/mol</b> Risk increases with increased HbA1c levels
<b>Blood Pressure BP</b>	Blood pressure is a measurement of the force applied to the walls of the arteries as the heart pumps blood through the body. The pressure is determined by the force and amount of blood pumped, and the size and flexibility of the arteries. Blood pressure is continually changing depending on activity, temperature, diet, emotional state, posture, physical state, and medication use.  The top, (first) number, the systolic number (130) is the pressure when the heart beats. The bottom (second) number, the diastolic number (80) is the pressure when the heart rests between beats.	<b>&lt;130 / 80 mmHg</b>	<b>≥ 130 / 80 mm Hg</b>
<b>ACR</b> Albumin-to-Creatinine Ratio	<b>Urine test</b> checking for the presence of a protein called albumin. When the kidneys are damaged, small amounts of albumin leak into the urine. This is sometimes called a microalbumin test. <b>Blood test</b> - Measuring the amount of creatinine in the blood (also called serum creatinine) is another useful way of determining how well the kidneys are functioning. Creatinine is produced when muscle tissue breaks down and is excreted from the body by the kidneys. If the kidneys are not excreting enough creatinine, levels will build up in the blood.	<b>&lt;2.5 mgm / mmol</b> in men <b>&lt;3.5 mg / mmol</b> in women	<b>≥ 2.5 mg / mmol</b> in men <b>≥3.5 mg / mmol</b> in women
<b>eGFR</b> Estimated glomerular filtration rate	A blood test is used whenever there is suspicion of a kidney disease. This is usually the case in people who are suffering from diabetes or from hypertension for a prolonged period of time. Both of these conditions affect the kidneys in different ways and overwork the kidneys to the point at which they are no longer able to function properly anymore.	<b>≥60 ml / min / 1.73m</b>	<b>&lt;60 ml / min / 1.73 m</b>
<b>Lipid Profile</b> (includes cholesterol)	The test includes total cholesterol, HDL cholesterol, LDL cholesterol and triglycerides plus an additional calculated value - the cholesterol/HDL ratio. A small amount of the body's cholesterol circulates in the blood. This includes HDL cholesterol (a good cholesterol) that carries excess cholesterol away for disposal and LDL cholesterol (a bad cholesterol) that deposits cholesterol in tissues and organs. Triglycerides are the body's storage form for fat. Although most triglycerides are found in fatty tissue, some circulate in the blood to provide fuel for muscles to	<b>triglycerides</b> < 1.7 mmol / L <b>total cholesterol</b> < 4.0 mmol / L	<b>triglycerides</b> ≥1.7 mmol / L <b>total cholesterol</b> ≥4.0 mmol / L

	work. Target levels are individualised for each person based on lipid profile result as well as other risk factors for heart attack and stroke.		
<b>Smoking</b>	People who smoke, or who are exposed to any amount of second-hand smoke, experience a higher risk of cardiovascular disease, lung cancer, and head and neck cancers than the general population. Smoking-related cardiovascular problems include high blood pressure, heart attack, high cholesterol, and circulation in legs and feet. Smoking also causes <b>insulin resistance</b> in people with and without diabetes.	<b>Non smoker</b>	<b>Current smoker</b>
<b>Medical reviews</b>	The better controlled diabetes is, the healthier the person will be and the less likely he or she is to develop complications that may affect organs such as the eyes, kidneys, nerves and blood vessels. Any reduction in HBA1c improves the chances of staying healthy. Some people can achieve reductions by making changes to their diet, while other people will need diabetic medications to achieve the same result. Regular reviews with your healthcare professional help in managing the condition and risks.	Attends <ul style="list-style-type: none"> <li>▪ at least 6 monthly review of HbA1c and blood pressure</li> <li>▪ annual review of lipids / ACR / eGFR and foot check.</li> <li>▪ two yearly retinal screening</li> </ul>	<ul style="list-style-type: none"> <li>▪ More than one year since diabetes last reviewed or</li> <li>▪ poor adherence -not taking medication or not taking medication consistently</li> <li>▪ missing appointments with healthcare professionals</li> </ul>
<b>Ethnicity</b>	Studies have shown that there is a higher (prevalence) incidence of type 2 diabetes in some ethnic groups. Type 1 diabetes appears to be higher in Europeans		<b>Ethnicity</b> Maori / Pacific Islander / South Asian
<b>Retinopathy</b> Eye exam	Dilated eye exam: For this exam, your eye doctor will place drops in your eyes that make your pupils open widely. This allows your doctor to get a better view inside your eye. <ul style="list-style-type: none"> <li>• Presence or absence of a cataract</li> <li>• Abnormal blood vessels</li> <li>• Swelling, blood or fatty deposits in the retina</li> <li>• Growth of new blood vessels and scar tissue</li> <li>• Bleeding in the clear, jelly-like substance that fills the centre of the eye (vitreous)</li> <li>• Retinal detachment</li> <li>• Abnormalities in the optic nerve</li> </ul> It is advisable to not drive immediately after this test (for 2 – 4 hours) and to wear sunglasses outside till your eyes feel normal.		<b>Retinopathy</b> <ul style="list-style-type: none"> <li>▪ Moderate retinopathy (R3)</li> <li>▪ Mild maculopathy (M3)</li> </ul> In either eye

*Please note: test result ranges vary according to age and other health conditions. Your healthcare professional will advise you on targets and goals most appropriate for you.*