Level 3 Diploma in Exercise Referral

REVISION NOTES – Medical Conditions/Activity Guidelines

TYPE 1 DIABETES

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| **Pathophysiology and signs/symptoms** | **Elevated blood glucose levels <8mmol/l****Excessive thirst and urination****Lack of insulin production**HungerWeight loss or gainBlured visionSlow wound healingRecurrent injectionsFatigue |
| **Progression of pathophysiology and signs/symptoms** | **Neuropathy****Damage to linings of arterial walls****Numbness in hands and feet****Increased risk of CHD/CVD/PAD**Renal damageRetinal damageHypertensionHypercholesterolaemiaHyper/hypoglycaemia |
| **Modifiable and non-modifiable risk factors** | **No specific cause – age/ viral infection/ family history/ shock/trauma, but not fully understood** |
| **Drug treatments – effects and side effects**  | **Insulin injections*** **lowers blood glucose**
* **risk of hypoglycaemia**
* tissue damage at injection site
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| **Surgical/therapeutic interventions** | **Surgical – artificial pancreas pump** **Increased activity levels****Modifications to diet** |
| **Lifestyle modifications** | **Follow nutritional guidelines for diabetes****Diet/ controlled sugar intake****Increased daily activity** |
| **Benefits of exercise** | **Improved glucose metabolism****Improved CV health (circulatory)**Lowering of blood pressureWeight managementReduced risk of CHD |
| **Exercise risks** | **Overexertion**Effects of medicationsCo-morbiditiesCheck correct fitting footwearConsider motor sensory neuropathy – balance/numbness/body awareness issues |
| **Exercise guidelines** | **Extended warm up and cool down****Know how to manage hypoglycaemia emergency****Must be stable and well-controlled**Avoid exercise if blood sugar levels >13mmol/l or <5.5mmol/lBe aware of tender injection sites when selecting exercisesConsider neuropathiesPre exercise carb intake |