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**  Hunger  Weight loss or gain  Blured vision  Slow wound healing  Recurrent injections  Fatigue |
| **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 damage  Retinal damage  Hypertension  Hypercholesterolaemia  Hyper/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 |
| **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 pressure  Weight management  Reduced risk of CHD |
| **Exercise risks** | **Overexertion**  Effects of medications  Co-morbidities  Check correct fitting footwear  Consider 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/l  Be aware of tender injection sites when selecting exercises  Consider neuropathies  Pre exercise carb intake |