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Monitoring Diabetes



What are the most important examinations required during a visit to a diabetic patient?

A history and physical examination are obtained two to four times yearly to obtain information on nutrition, physical activity, management of diabetes and cardiovascular risk factors, and diabetes-related complications (complications are discussed by other colleagues in campaign).



What are the most important tests needed to monitor the progress of diabetes?

Lipid profile: Performed annually B/C DM patients are at higher risk for atherosclerotic cardiovascular disease (ASCVD) than people without diabetes

- ✓ Total cholesterol (TC): Optimal <200 , high > 240 mg/dL
- ✓ Triglycerides (TG): Optimal < 150 , High > 200 mg/dL
- ✓ High density lipoprotein cholesterol (HDL): Optimal > 60 , low < 40 mg/dL
- ✓ Low density lipoprotein cholesterol (LDL): Optimal < 130 , High > 160 mg/dL



What are the most important tests needed to monitor the progress of diabetes?

A1C: Performed every 3 to 6 months

Goal (Generally): ≤ 7 but it may vary between patients

Basic metabolic profile Performed annually contains:

- Electrolytes (Na: 135-145 mEq/L, K: 3.5-5 mEq/L).
- BUN: 5-20 mg/dL.
- Creatinine: 0.6-1.2 mg/dL.
- Ca: 8.5-10.5 mg/dL.
- Glucose: 70-100 mg/dL.



What are the most important tests needed to monitor the progress of diabetes?

Urinary Albumin-to-creatinine ratio: Performed annually for the detection of nephropathic complications, and has 3 categories:

- ✓ A1: normal to mildly increase: < 30 mg/g
- ✓ A2: moderately increased: 30-300 mg/g
- ✓ A3: severely increased: > 300 mg/g



What are the special tests for those expected to have type 1 diabetes?

Liver function test: in T2DM it was found that these values were much higher than normal:

- Alkaline phosphatase (ALP): 30 to 120 IU/L
- Alanine aminotransferase (ALT): 0 to 45 IU/L
- Aspartate aminotransferase (AST): 0 to 35 IU/L
- Total bilirubin: 1.2 mg/dL
- Direct bilirubin: 0.3 mg/dL



What are the special tests for those expected to have type 1 diabetes?

Thyroid function test: Thyroid hormones are insulin antagonists, excess or deficit of any one can result in functional derangement of the other.

T3: 3.5-7.8 pmol/l (Decreased in DM)

T4: 9-23 pmol/l (Decreased in DM)

TSH: 0.4-4 mU/l (Increased in DM)



Resources and references:

All illustrations used are from Canva.com

Review and audit:

The content of this booklet has been reviewed by
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