Self-Monitoring of Blood Glucose

In just a few years since its introduction, self-monitoring of blood glucose (SMBG) has revolutionized the management of diabetes. Diabetics who do not maintain vigilant awareness of their blood sugar and who do not make every effort to keep their blood sugar under tight control, can expect a significant increase in their risk of serious health problems such as eye, kidney and heart disease as well as a whole host of other problems such as depression, fatigue, impotence and chronic infections. Self-monitoring of blood glucose is important for a variety of reasons, but the biggest ones are that it improves the quality of life, life expectancy, and the likelihood of avoiding all of the complications of diabetes.

Optimal Range for Self-Monitored Blood Glucose

Time of Check	Goal
Before Breakfast (fasting)	80 – 100 mg/dl
Before lunch, supper and snack	90 – 120 mg/dl
Two hours after meals	Less than 130 mg/dl
Bedtime	110 – 140 mg/dl

Optimal Schedule for Self Monitoring of Blood Glucose

- Test upon awakening and just before each meal. Ideal fasting blood sugar is 80 to 100 mg/dl. Before other meals is under 120 mg/dl

- Test 2 hours after each meal. Ideal blood sugar 2 hours after meals is under 130 mg/dl.

- Test at bedtime. Ideal blood sugar at bedtime is under 140 mg/dl.

Doctor Visit Checklist

	Quarterly	Annually
REVIEW MANAGEMENT PLAN		
Blood glucose self-monitoring results	X	
Medication/insulin regimen	X	
Nutritional plan	X	
Exercise program	X	
Psychosocial support	X	
PHYSICAL EXAMINATION		
Weight	X	
Skin, including insulin injection sites	X	
Feet: pulses, capillary refill, color, sensation, nails, skin, ulcers	X	
Neurologic: reflexes, proprioception, vibratory sensation, and touch		X
Regular retinal exam	X	
Dilated retinal exam		X
Electrocardiogram		X
LABORATORY TESTS		
Fasting blood glucose Normal/target range: 80-100 mg/dl before meals	X	
Glycosylated hemoglobin (A1C) Target range: <7% in adults, <7.5% in children	X	
Urinalysis: glucose, ketones, microalbumin, protein, sediment	X	
Complete cardiovascular profile Test/Target Cholesterol <200 mg/dl Triglycerides <200 mg/dl LDL <130 mg/dl HDL >35 mg/dl Lipoprotein (a) <40 mg/dl C-reactive protein <1.69 mg/l		X

Fibrinogen <400 mg/l Homocysteine <16 micromole/l Ferritin 60 to 200 mcg/l (if elevated – transferrin saturation, if elevated genetic testing for hemochromatosis) – only once) Lipid peroxides <normal		
Serum creatinine (in adults; in children, do only if protein is present in urine)	X	