

Comprehensive Metabolic Panel (CMP) with Additional Values

1. Glucose

- Normal Range: 70-99 mg/dL (fasting)

2. Calcium

- Normal Range: 8.5-10.5 mg/dL

3. Sodium (Na)

- Normal Range: 135-145 mEq/L

4. Potassium (K)

- Normal Range: 3.5-5.0 mEq/L

5. Chloride (Cl)

- Normal Range: 98-106 mEq/L

6. Carbon Dioxide (CO₂) / Bicarbonate (HCO₃)

- Normal Range: 23-30 mEq/L

7. Blood Urea Nitrogen (BUN)

- Normal Range: 7-20 mg/dL

8. Creatinine

- Normal Range: 0.6-1.3 mg/dL

9. Estimated Glomerular Filtration Rate (eGFR)

- Normal Range: >60 mL/min/1.73 m² (adjusted for age, race, and gender)

CKD Stages and GFR Values:

1. **Stage 1:** Normal or high
 - eGFR: ≥90 mL/min/1.73 m²
 - *Kidney damage with normal kidney function.*
2. **Stage 2:** Mildly decreased
 - eGFR: 60-89 mL/min/1.73 m²
 - *Kidney damage with mild loss of kidney function.*

3. **Stage 3a:** Mild to moderate decrease
 - **eGFR:** 45-59 mL/min/1.73 m²
 4. **Stage 3b:** Moderate to severe decrease
 - **eGFR:** 30-44 mL/min/1.73 m²
 5. **Stage 4:** Severe decrease
 - **eGFR:** 15-29 mL/min/1.73 m²
 6. **Stage 5:** Kidney failure (End-stage renal disease, ESRD)
 - **eGFR:** <15 mL/min/1.73 m²
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10. Total Protein

- **Normal Range:** 6.0-8.3 g/dL

11. Albumin

- **Normal Range:** 3.5-5.0 g/dL

12. Total Bilirubin

- **Normal Range:** 0.1-1.2 mg/dL

13. Alkaline Phosphatase (ALP)

- **Normal Range:** 44-147 IU/L

14. Aspartate Aminotransferase (AST)

- **Normal Range:** 10-40 IU/L

15. Alanine Aminotransferase (ALT)

- **Normal Range:** 7-56 IU/L
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Additional Tests

16. Hemoglobin A1c (HbA1c)

- **Normal Range:** 4.0-5.6% (non-diabetic)
- **Pre-diabetes:** 5.7-6.4%
- **Diabetes:** ≥6.5%