

**What Is the Insulin-to-Carb Ratio (ICR)?**

Your **ICR** tells you how many grams of carbohydrate 1 unit of rapid-acting insulin will cover. For example, an ICR of 1:15 means 1 unit covers 15g of carbs.

**Meal bolus formula:**

Carbs in meal (g)	÷	Your ICR	=	Meal insulin units	Current BG – Target BG	÷	Your CF	=	Correction units
45 g carbs	÷	15	=	3 units	220 – 120	÷	50	=	2 units

**What Is the Correction Factor (CF)?**

Your **Correction Factor** (also called insulin sensitivity factor or ISF) tells you how many mg/dL your blood sugar drops per 1 unit of rapid-acting insulin.

**Correction bolus formula:****Estimating Your ICR & Correction Factor (Rule of 500 / Rule of 1800)**

These rules provide starting estimates — your doctor will fine-tune your doses based on your actual blood sugar responses.

Rule	Formula	Example (Total Daily Insulin = 40 units)	Result
500 Rule (ICR estimate)	$500 \div \text{Total Daily Insulin (TDI)}$	$500 \div 40$	ICR $\approx$ 1:12.5 (1 unit covers ~12–13g carbs)
1800 Rule (CF estimate)	$1800 \div \text{Total Daily Insulin (TDI)}$	$1800 \div 40$	CF $\approx$ 45 (1 unit drops BG ~45 mg/dL)

**Total Daily Insulin (TDI)** = all basal insulin + all bolus insulin in a typical day. Ask your provider for your TDI if you are unsure.

**My Personal Insulin Ratios — Fill In With Your Provider**

	Breakfast	Lunch	Dinner	Bedtime / Other
<b>My ICR (1 unit covers ___ g carbs)</b>	1 : ___	1 : ___	1 : ___	1 : ___
<b>My Correction Factor (1 unit drops BG ___ mg/dL)</b>	___ mg/dL	___ mg/dL	___ mg/dL	___ mg/dL
<b>My Blood Sugar Target</b>	___ mg/dL	___ mg/dL	___ mg/dL	___ mg/dL
<b>My Insulin On Board (IOB) window</b>	— hrs	— hrs	— hrs	— hrs

**Insulin on Board (IOB)** — Always subtract active insulin before stacking correction doses. Rapid-acting insulin (Humalog, Novolog, Fiasp) stays active for **3–4 hours**. If you corrected 2 hours ago and still have insulin working, subtract that IOB before giving another dose. Stacking insulin without accounting for IOB is a leading cause of hypoglycemia.

■ **Afrezza (inhaled insulin)** has a shorter duration — about 2–2.5 hours. Your IOB window is shorter. Your ICR in units also differs from injectable insulin. Your provider will give you Afrezza-specific ratios.

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