

Insulin to Carbohydrate Ratio (Food Insulin)

Carbohydrate intake (gram)

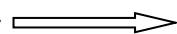
125	63	42	31	25	21	15.5	12.5	10	8	6	5	4	3.5	3
120	60	40	30	24	20	15	12	10	8	6	4.5	4	3	3
115	58	38	29	23	19	14	11.5	9.5	7.5	5.5	4.5	3.5	3	2.5
110	55	37	28	22	18.5	13.5	11	9	7	5.5	4	3.5	3	2.5
105	53	35	26	21	17.5	13	10.5	8.5	7	5	4	3.5	3	2.5
100	50	33	25	20	16.5	12.5	10	8	6.5	5	4	3	2.5	2.5
95	48	32	24	19	16	11.5	9.5	7.5	6	4.5	3.5	3	2.5	2
90	45	30	23	18	15	11	9	7.5	6	4.5	3.5	3	2.5	2
85	43	28	21	17	14	10.5	8.5	7	5.5	4	3	2.5	2	2
80	40	27	20	16	13.5	10	8	6.5	5	4	3	2.5	2	2
75	38	25	19	15	12.5	9	7.5	6	5	3.5	3	2.5	2	1.5
70	35	23	18	14	11.5	8.5	7	5.5	4.5	3.5	2.5	2	2	1.5
65	33	22	16	13	11	8	6.5	5	4	3	2.5	2	1.5	1.5
60	30	20	15	12	10	7.5	6	5	4	3	2	2	1.5	1.5
55	28	18	14	11	9	6.5	5.5	4.5	3.5	2.5	2	1.5	1.5	1
50	25	17	13	10	8.5	6	5	4	3	2.5	2	1.5	1	1
45	23	15	11	9	7.5	5.5	4.5	3.5	3	2	1.5	1.5	1	1
40	20	13	10	8	6.5	5	4	3	2.5	2	1.5	1	1	1
35	18	12	9	7	6	4	3.5	2.5	2	1.5	1	1	1	0.5
30	15	10	8	6	5	3.5	3	2.5	2	1.5	1	1	0.5	0.5
25	13	8	6	5	4	3	2.5	2	1.5	1	1	0.5	0.5	0.5
20	10	7	5	4	3.5	2.5	2	1.5	1	1	0.5	0.5	0.5	0.5
15	8	5	4	3	2.5	1.5	1.5	1	1	0.5	0.5	0.5	-	-
10	5	3	3	2	1.5	1	1	0.5	0.5	0.5	-	-	-	-
0	1:2	1:3	1:4	1:5	1:6	1:8	1:10	1:12	1:15	1:20	1:25	1:30	1:35	1:40



Stronger

Insulin to Carbohydrate ratio (unit to grams)

Weaker



Meal	Breakfast	Lunch	Afternoon tea	Dinner
ICR	1:	1:	1:	1:

Insulin to Carbohydrate Ratio (Food Insulin)

What is an insulin to carbohydrate ratio (ICR)?

An ICR helps us find out how much rapid-acting insulin (NovoRapid) we need to match the amount of carbohydrate we will eat at a meal. It is written as 1 unit of rapid acting insulin that matches certain amount of carbohydrate.

e.g. 1unit to 10g of carbohydrate = 1u:10g or 1:10

How do I use an ICR?

Count the total carbohydrate in your meal (breakfast, lunch, dinner and in some case afternoon tea).

Divide your total carb by the ratio. For example:

$$\frac{\text{Grams of Carbohydrates}}{\text{ICR}} = \frac{\text{e.g 50 g}}{\text{e.g 1:10}} = \frac{50}{10} = 5 \text{ u}$$

∴ Dose of rapid acting insulin (Novorapid) = 5 units

Once you have calculated the insulin for your food, then add on any insulin needed to correct your BGLs to this number, then give you insulin injection before your meal.

Is my ICR correct?

Rapid acting insulin can take up to 2-3 hours to finish working. To check if the ICR is working, give your child their food insulin for the meal, wait 3 hours and check their BGLs again. If BGLs are “in target” (between 4-7 mmol/L) then the ICR is correct.

If their BGLs are “above target”, you need to strengthen the ICR (make the ratio number smaller e.g. 1:10 → 1:8).

If BGLs are “below target”, you need to weaken the ICR (make the ratio number bigger e.g. 1:10 → 1:12).

For this test to work, your child needs to be “in target” before the meal. They also cannot eat any extra carbohydrates after the meal until you have checked their BGLs 3hrs later.

Insulin to Carbohydrate Ratio (Food Insulin)

Carbohydrate intake (gram)

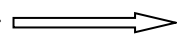
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