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Patient Care + Research + Clinical Trials

Dr. Tom Elliott MBBS, FRCPC
Medical Director

400 - 210 W Broadway   phone: 604.628.7253
Vancouver, BC   fax: 604.398.2371
V5Y 3W2, Canada   email: research@bcdiabetes.ca

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Loop vs freeAPSX

BCDiabetes does not have RCT evidence comparing outcomes of Loop vs freeAPSX (FAX) however we do have outcomes for a number of BCDiabetes Loopers who have made the transition from Loop to FAX. Our results show that with a minimum of 4 weeks on FAX, TIR is 11% higher than it was on Loop.

| | n | Time in Range 4.0-10.0 mMol/L | | | |
		on Loop	on FAX	change	p =
Loop to FAX	38	75%	86%	11%	0.0001

However not everybody prefers FAX: 1 in 8 of those who make the Loop-to-FAX transition end up going back to Loop. Below are the reasons these users prefer Loop.

FAX's Autotune feature is conservative: FAX's autotune feature which automatically adjusts ICR, ISR & basal rates, is more conservative than the manual algorithms with which Loop clients are familiar. Those who are accustomed to stricter glycemic control prefer the manual control Loop affords its user. Loop, on the other hand, does exactly as it is configured. FAX users who want more aggressive insulin delivery have the option of adjusting specific settings such as *SMB Basal Minutes and UAM SMB Basal Minutes which control the size of the microbolus, Recommended Insulin Fraction which is a multiple for insulin recommendations, and Dynamic ISR and Dynamic ICR.*

Loop offers meal choices by glycemic index: Loop lets its user choose the glycemic index of their meal, defaulting to icons of a **lollypop** for high GI, a **taco** for medium GI & a **pizza** for low GI foods, effectively setting a custom absorption time. This makes the meal-time insulin reaction more predictable compared to FAX, which at default settings (see above in italics) tends to correct meal-time spikes more conservatively.

Loop has custom overrides: Loop's custom override functionality lets the user determine the percentage of insulin increase or decrease in addition to the target range and duration, whereas FAX allows adjustment of only target and duration. This distinction makes Loop more manually-controllable, and 'proactive' instead of 'reactive'.

Loop has a simpler interface: FAX, despite its many advanced features, is encumbered by complex jargon and tracings. Although FAX is not as cumbersome to use as AAPS, it has a steeper learning curve than Loop which has an uncluttered interface with easily learned features, and does almost all of what FAX does.

To see BCDiabetes' outcomes with all "Loop" DIY APS algorithms click here.