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Case Study 1.3: Jumpy CGM

V 2.0

Incidences of erratic CGM - what that may do to your FCL

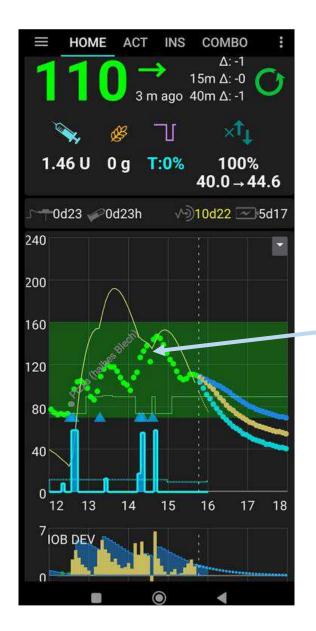
isometrical advice

One jumpy value in late phase of digesting Pizza triggers (too) big SMB Bernie 08 Aug 2023 12-17h

7 Case Study 4.1 discusses this entire pizza meal. Here we like to look only at the 14:33

(compression?) low CGM value followed by a significant fake acceleration noticed 14:38 =

02:38 PM which triggered a significant SMB of 1.7 U:



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3PM ().20 U		S	MB PH
3PM (0.40 U		S	MB PH
8PM (0.40 U		S	MB PH
3PM ().10 U		S	MB PH
28PM (0.10 U		S	MB PH
3PM (0.40 U		S	MB PH
3PM ().70 U		S	MB PH
8PM 1	1.70 U		S	MB PH
23PM (0.10 U		S	MB PH
8PM (0.80 U		S	MB PH
8PM 2	2.30 U		S	MB PH
88PM 3	3.00 U		S	MB PH
3PM 1	1.80 U		S	MB PH
3AM 1	1.20 U		S	MB PH
MA8	0.40 U		S	MB PH
7AM (0.10 U		S	MB PH
3AM (0.10 U		S	MB PH
MA8	0.80 U		S	MB PH
	3PM (3PM (3PM (3PM (3PM (3PM (3PM (3PM (3PM 0.20 U 3PM 0.40 U 3PM 0.40 U 3PM 0.10 U 3PM 0.10 U 3PM 0.70 U 3PM 0.70 U 3PM 0.80 U 3PM 0.80 U 3PM 1.80 U 3AM 1.20 U 3AM 0.40 U	3PM 0.20 U 3PM 0.40 U 3PM 0.40 U 3PM 0.40 U 3PM 0.10 U 3PM 0.40 U 3PM 0.70 U 3PM 0.70 U 3PM 0.80 U 3PM 0.80 U 3PM 1.80 U 3AM 1.20 U 3AM 0.40 U 3AM 0.10 U	3PM 0.20 U S 3PM 0.20 U S 3PM 0.40 U S 58PM 0.40 U S 53PM 0.10 U S 3PM 0.40 U S 3PM 0.40 U S 3PM 0.70 U S 3PM 0.70 U S 3PM 0.70 U S 3PM 0.80 U S 3PM 0.80 U S 3PM 1.80 U S

To get nice size SMBs at detected strong acceleration, and to run fully automatically <u>without</u> setting EatingSoonTT, I have an Automation that sets TT=74 mg/dI for 26 minutes

15	immediately when strong acceleration is detected. Shooting towards that low temp. target				
16	contributed to the SMB size.				
17					
18	The additional insulin due to the "fake" strong rise made the situation risky with respect				
19	to going a bit too low between 17 and 18 h, and I had to watch out whether I need a snack,				
20	or whether I just reach a nice low starting bg for my upcoming dinner.				
21					
22	Avenues to avoid the problem could be:				
23	 First and foremost, make sure the principal quality of your CGM values are of good 				
24	quality- See section 1.2.				
25	 Build in more "quality control": What is your loop is allowed to see as a sudden 				
26	acceleration ("logical pattern") in <u>your</u> bg curves?				
27	Comparing the sequence of deltas (in my screen about $+3 +3 -18 +21$, or				
28	comparing short-average-delta (=the average of the last 3) with the new delta				
29	• (+3+3-18)/3= -4 compared to -18 or				
30	• (+3-18+21)/3= +2 compared to +21				
31	both point to an artefact, and you could build an Automation rule that captures				
32	the cases you tend to occasionally have.				
33	• Formulate an Automation that gives an alarm at any sudden strong drop; better yet:				
34	that sets for \sim 10 minutes an odd TT, so no SMB could be devised at the expected				
35	jump back up.				
36	 Specifically, if you have nighttime compression lows, consider (1) different sensor 				
37	placement on your body (2) nighttime SMB shut-off using odd profile target ((see also				
38	section 5.1.1)), or (3) use an over-case (3D-printed).				
39					
40					
40					
41					
42					
43	Invitation to add other case reports, here or as an extra case study.				
44	Please contribute also one that emphasizes utility of SMB-off at night				