1 *Case Study 1.3:* **Jumpy CGM** V 2.1

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

3

4 One jumpy value in late phase of digesting Pizza triggers (too) big SMB
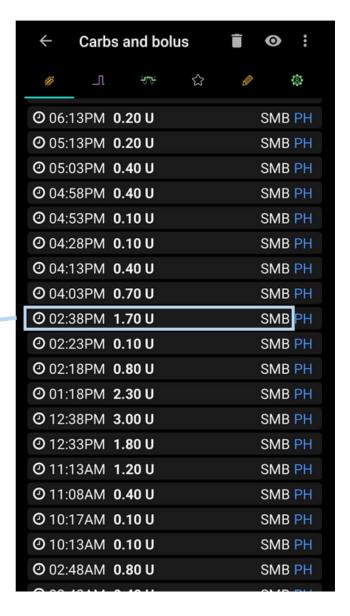
5

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

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

8 02:38 PM which triggered a significant SMB of 1.7 U:

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12 To get nice size SMBs at detected strong acceleration, and to run fully automatically <u>without</u>

13 setting EatingSoonTT, I have an Automation that sets TT=74 mg/dl for 26 minutes

14 immediately when strong acceleration is detected. Shooting towards that low temp. target

15 contributed to the SMB size.

16

17 The additional insulin due to the **„fake" strong rise made the situation risky** with respect

18 to going a bit too low between 17 and 18 h, and I had to watch out whether I need a snack,

19 or whether I just reach a nice low starting bg for my upcoming dinner.

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21 Avenues to avoid the problem

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23 Avenues to avoid over-reactions of autoISF to CGM artefacts could be:

24 • First and foremost, make sure the principal quality of your CGM values are of good

25 quality- See section 1.2.

26 • Build in more „quality control": What is your loop is allowed to see as a sudden

27 acceleration („logical pattern") in <u>your</u> bg curves?

28 Comparing the sequence of deltas (in my screen about +3 +3 -18 +21, or

29 comparing short-average-delta (=the average of the last 3) with the new delta

30 • (+3+3-18)/3= -4 compared to -18 or

31 • (+3-18+21)/3= +2 compared to +21

32 both point to an artefact, and you could build an Automation rule that captures

33 the cases you tend to occasionally have.

34 • Formulate an Automation that gives an alarm at any sudden strong drop; better yet:

35 that sets for ~ 10 minutes an odd TT, so no SMB could be devised at the expected

36 jump back up.

37 • Specifically, if you have nighttime compression lows, consider (1) different sensor

38 placement on your body (2) nighttime SMB shut-off using odd profile target ((see also

39 section 5.1.1)), or (3) use an over-case (3D-printed).

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43 …………………………………………………………………………………

44 Invitation to add other case reports, here or as an extra case study.
45 Please contribute also one that emphasizes utility of SMB-off at night