Aims

- The Origins of Sugar Surfing
- Static vs. Dynamic Self Care
- Sugar Surfing Terms/Images
- Illustrate Sugar Surfing Methods

**Defining “Sugar Surfing™”**

“Dynamic Diabetes Self-Management”. Based on **frequent pattern management**

Sugar Surfing is “next level” self-care
Low carb eating may calm the waters, but...

Stress
Insulin pump failures
Denatured insulin
Basal insulin tuning
etc...

must be surfed...

Sugar Surfing™ isn't about “controlling everything”

S.U.R.F.
See the patterns
Respond appropriately
Understand their Significance

Follow up carefully

This is Sugar Surfing...

“Pattern anatomy”

shelf
delta
drop
pivot
inflection
lag
This is Sugar Surfing...

The point is that every "day of surfing" is never exactly the same: variability is expected

Appreciate the flux of sugar levels in non-d persons

4 day non-diabetic CGM plot

"the only person with a straight line blood sugar is a dead person"

Which Surfer uses an insulin pump?
Which one is non-diabetic?

Sugar Surfing™ emphasizes significance

Determining significance: take C.A.R.E.

Current (what are you doing now)
Anticipated (actions/omissions)
Recent (actions/omissions)
Experience (your own)

Significance is situationally dependent

Significance: patient determines

Act or not act?
Act or not act?
Act or not act?
Act or not act?
Sugar Surfing™ exists at the intersection of...

Sugar Surfing™

- It's "Dynamic Diabetes Self Management"
- aka "Management in the Moment"
- It's a process, not a formula/prescription
- Can be used with pump or injection therapy
- CGM not required...but makes it easier
- "Surfing" leverages dynamic thinking in proactive and reactive ways
- Sugar Surfing is a paradigm shift in d-care

Example: shelf delta drop

Significance is subjective

7 year old T1 D child 1 day after Minneapolis workshop ("pivoting")
“Direction affects correction”

At IDENTICAL levels using a BG meter, your next actions can be ANYTHING based on the DIRECTION of FLOW.

Treat a high
No action
Treat a low

“Deflect and correct”
Practicing lower pivot points can/will lower the flux ...and lower the A1c

Practice higher dosing thresholds when first learning to pivot

Once comfortable, then LOWER the pivot action threshold

Delta wave

Pivot
“aim small at first”

Learn micro-dosing at higher starting points first (“shelf”)

Then...as your skills/confidence grows...

Set lower action thresholds and targets

Taking the drop

Basic Sugar Surfing™ Example

The heart of ultra tight blood sugar control:

The mini-pivot
Mini-pivoting

Microcarbing (aka "nudge")

Timing insulin

Waiting for the bend and meal timing depends on BG trend
And it also depends on the food (fast, medium or slow)

Example
What a basal insulin is supposed to facilitate

**BALANCE**: Incoming blood sugar (influx)

**WITH**: Outgoing blood sugar (efflux)

---

Does this person require a basal insulin change?

---

Taking the drop
Calibration tips

1) Best done on a steady trend
2) Best done in preferred target range
3) The first 24 hours may be variable
4) An extra calibration on day 1 is ok
5) Calibration “on the bend”
6) Re-calibrate after large swings
7) It is possible to over-do it
8) Enter the BG as soon as it’s collected

Sequential learning...

Use prior results to improve future outcomes

It’s amazing what you can ‘see’ when you know what you’re looking at. Would your doctor know how to interpret all this?
"stacking insulin" is wrong

Stacking Insulin vs. Use of I-Chains

**Insulin stackers**
- Are often unaware they stack
- Don’t follow up on their actions
- Lack of interest, data, or access to BG checking supplies/tech
- Dosing multiple doses of rapid-acting insulin is overly aggressive and irresponsible

**I-Chainers**
- Proactively overlap insulin doses
- Always follow-up on actions to shape BG results
- Well-calibrated CGM makes this practical to "chain dependent events"
- Are empowered and engaged patients

UNSAFE!  SAFE!
**Determining significance: take C.A.R.E.**

- **Current** (what are you doing now)
- **Anticipated** (actions/omissions)
- **Recent** (actions/omissions)
- **Experience** (your own)

**Top tips for Safe Surfing**

- Nail down your basal requirements
- Fewer basal rates work better than more
- Calibrate your CGM carefully
- Glance often (40-50 times a day)
- Finesse works better than brute force
- Self-experiment to understand how your body works
- Stop comparing your diabetes to others
- No shame in hard work
Thank you!

SugarSurfing.com
- No cost diabetes education (workshops, posts, videos, and conversation)
- Twitter: @SugarSurfing
- Facebook.com/SugarSurfing

Book Sales Fund Programs
Inquiries by Email To: StephenPonderMD@SugarSurfing.com
- Stephen W. Ponder MD FAAP CDE
- Kevin L. McMahon

Free eBook for Newly Diagnosed <90days