

Scuba Diving Without Air & Other Impossible Feats



QS Annual
Conference
Show & Tell

Sept. 2018
Jessica Ching

Which is “Impossible?”

Scuba: No air



Fly: No wings

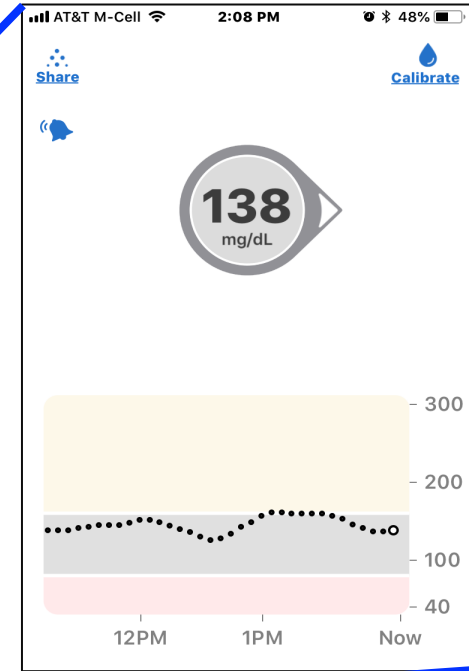
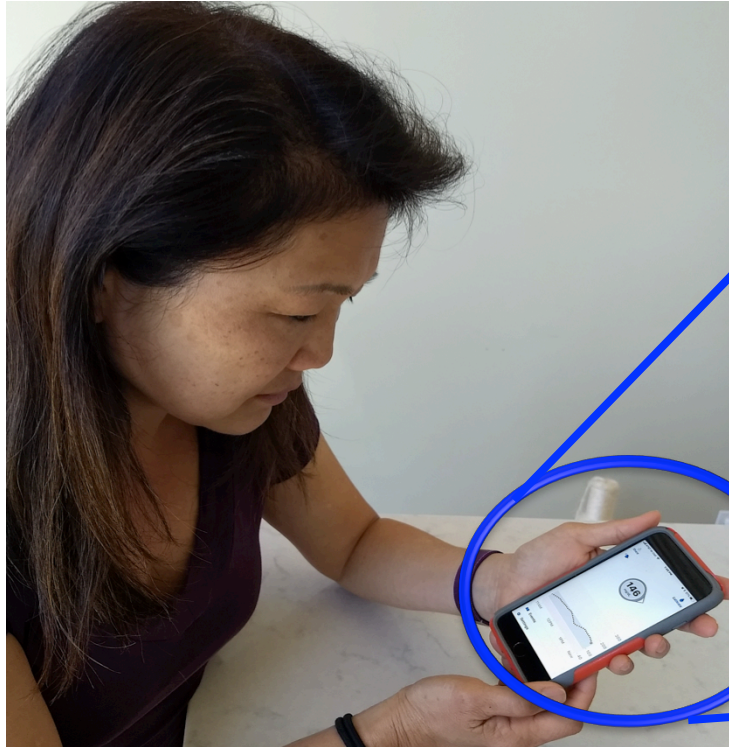


Run: No food



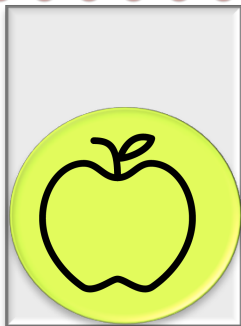
Type 1 diabetes = All 3 Impossible

24/7 Breakthrough Tool



Balancing on the Tightrope

Plus: Stress, Sleep, Sickness, Daylight savings



FOOD

I count every carb,
plus fat & protein.
100-180g carbs/day.



INSULIN

0.5 units/hr. &
2-5 units/meal

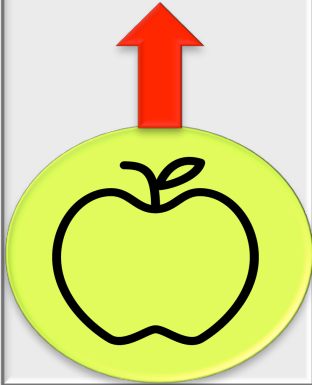


EXERCISE

Exercise ~1 hr
4-6x/week.

A Really Lousy Proposition

~60 carbs
(240 cal.)
per run



FOOD

!!!
\$^@*
(&*!

1 hour @
70%+ max
heartrate



EXERCISE

The Holy Grail

Nearly 100% exercise
benefit possible?

Research says no.



FOOD



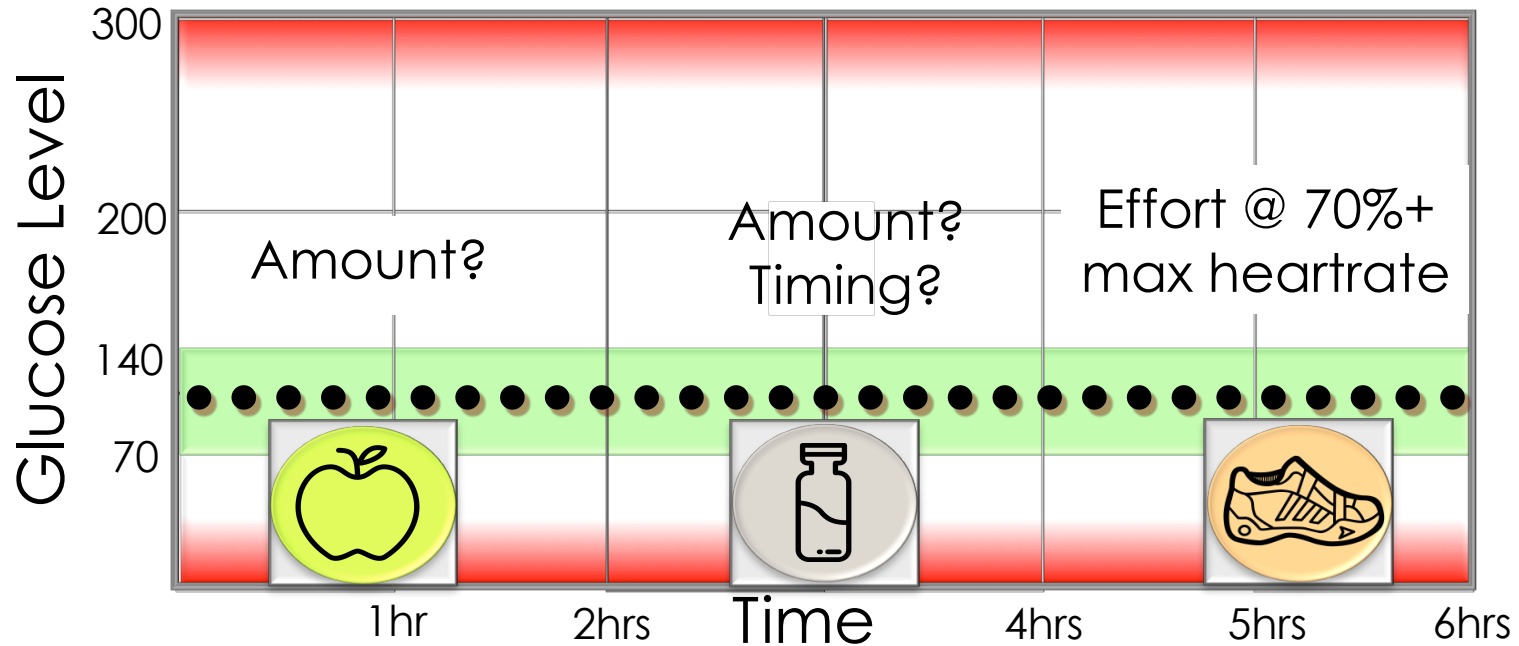
INSULIN



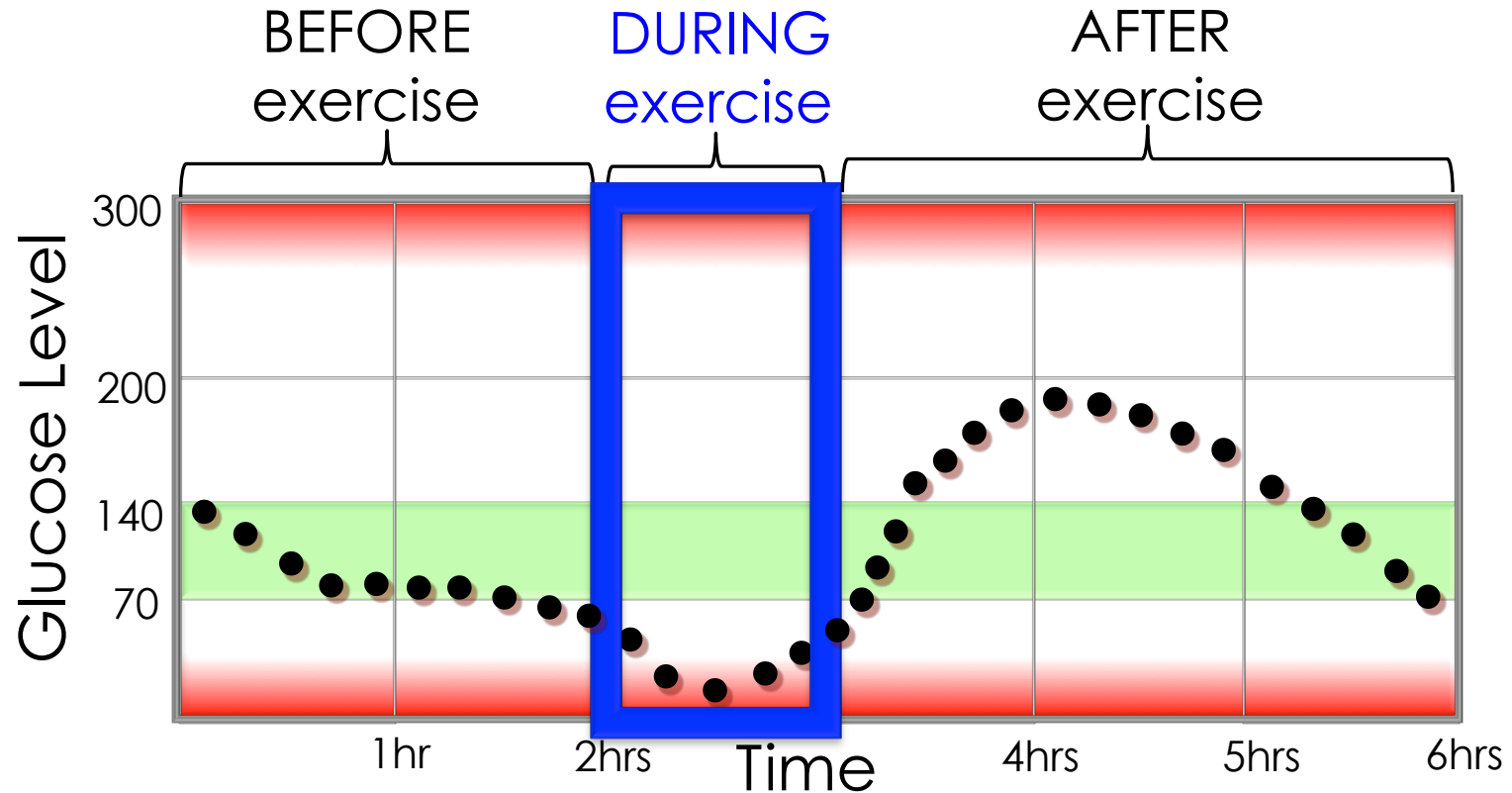
EXERCISE

My “Green Zone” Trials

My blood sugar level is the tightrope.

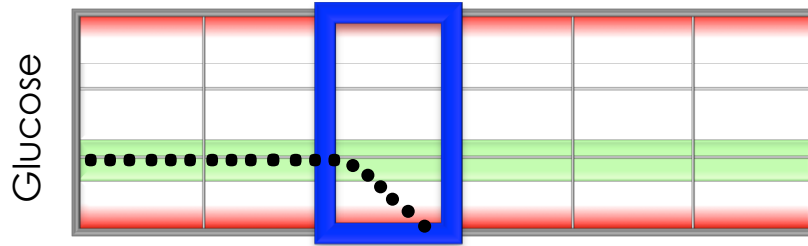


A Day of My Exercise



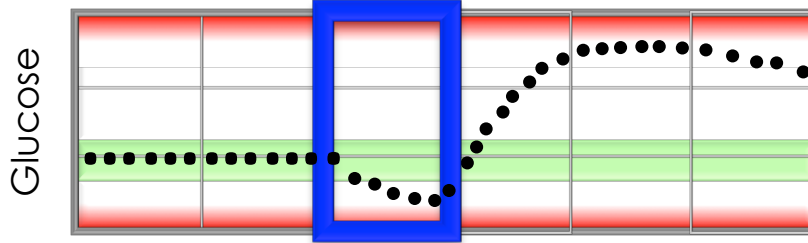
My Exercise Trials

**.5 Hr lead
+ 40% (80%)**



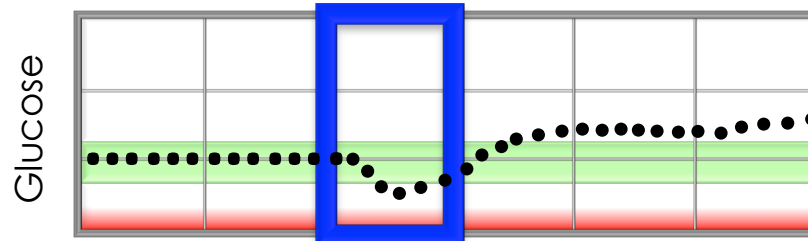
Result:
Red Zone crash.
Abandon. Eat
50 carbs.

**1.75 Hr lead
+ 50% (50%)**



Result:
No red zone,
but too high
after

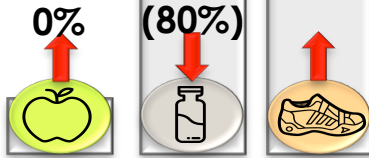
**5 Hr lead
+ 60% (60%)**



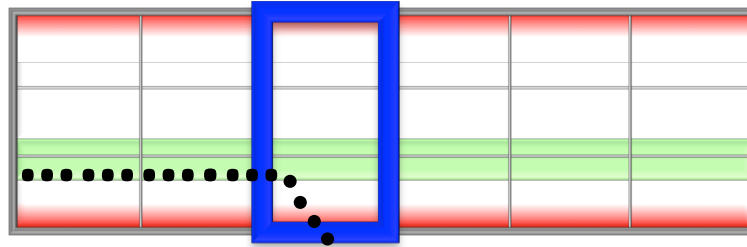
Result:
Close to Green
Zone, but 60%
food needed

Isolation of Variables

45 min lead

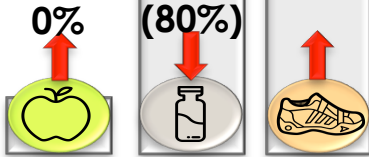


Glucose

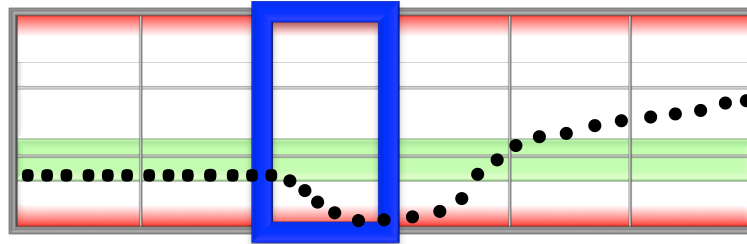


Result:
Red Zone crash.

1.5 Hr lead

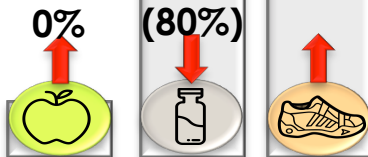


Glucose

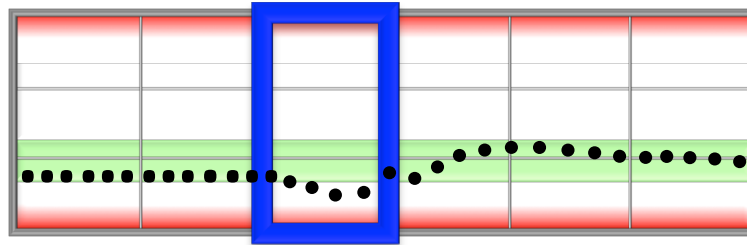


Result:
Drop (no crash)
Is later.

2 Hr lead

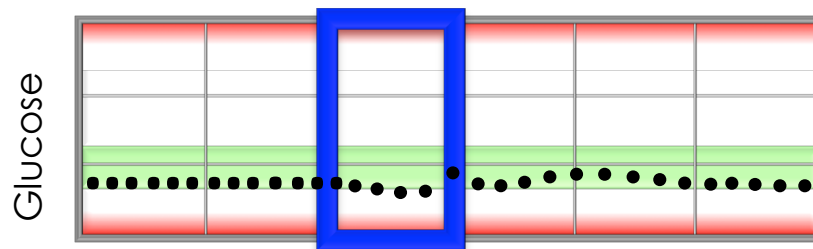
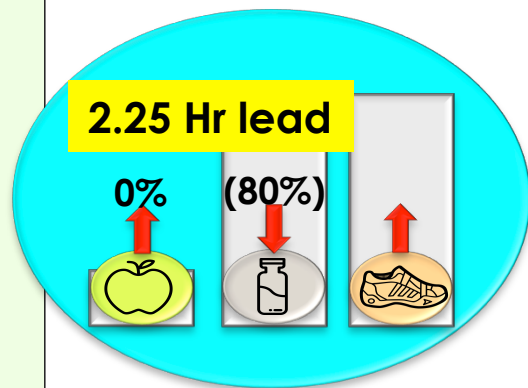


Glucose

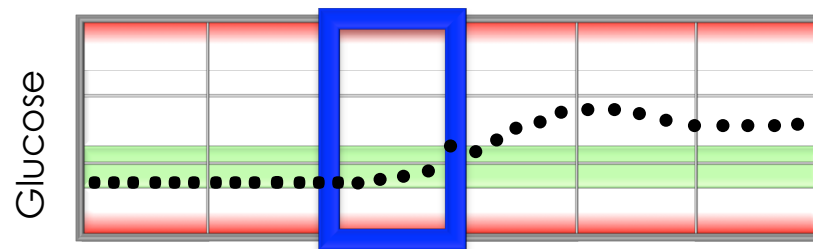
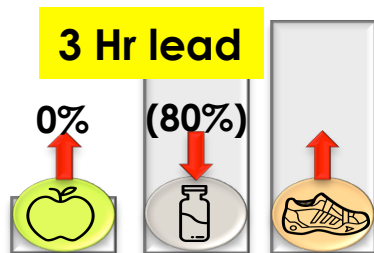


Result:
No drop at all,
but still high
after. Close!!

2184 “Trials” of $n=1$



Result:
Seems perfect.
Can be better?



Result:
Double check.
No, 3 hrs is not
good.



I Run Half Marathons: Almost No Food!

12 Races

8736 Miles

873,600 Calories saved

249 Pounds not gained

Takeaways

KEY FACTORS
are
everywhere

DATA speak
multiple
languages



VARIABLES
can vary!

CHALLENGE
“what is
known”

Thank you!

Questions