Diabetes Type 1

Visualization

Data
blood cells

[Diagram of glucose and insulin]
Self-management

Insulin by injection or pump

Measuring glucose levels
A careful balance

Long-term complications

Danger

Danger
Factors affecting glucose levels

Current glucose level

Available insulin, which is influenced by

- Amount injected
- Location and state of injection location
- Environment temperature
- Contingencies (air bubbles, leakage, etc.)

Food intake

- Carbohydrates
- Food composition

Exercise (Short & long-term effect)
Glucose sensor

Freestyle Libre (Abbott)
Insulin pump

Minimed Veo (Medtronic)
Activity tracker

Google Fit
Custom web “app”

Bring together data sources

Explore data

Discover patterns

Make decisions based on data

Demo (Chrome & Firefox):
http://www.sharkwing.com/gc
Custom web “app”

Plain javascript

Runs in browser
  (currently Chrome & Firefox)

Using dc.js (d3 + crossfilter)

Demo (Chrome & Firefox):
http://www.sharkwing.com/gc
Zooming & level of detail
Focus & context
Aggregate over day and week
Aggregate over day and week
Activity & insulin
My wish list

Include more variables

Select and aggregate data based on a query

Automatically detect patterns

Give advice based on the patterns that work best

Automate synchronization of data sources
My wish list

Include more variables

Select and aggregate data based on a query

Automatically detect patterns

Give advice based on the patterns that work best

Automate synchronization of data sources
Effects on my diabetes

Being able to identify patterns

Make changes in my approach and lifestyle

But also: motivation