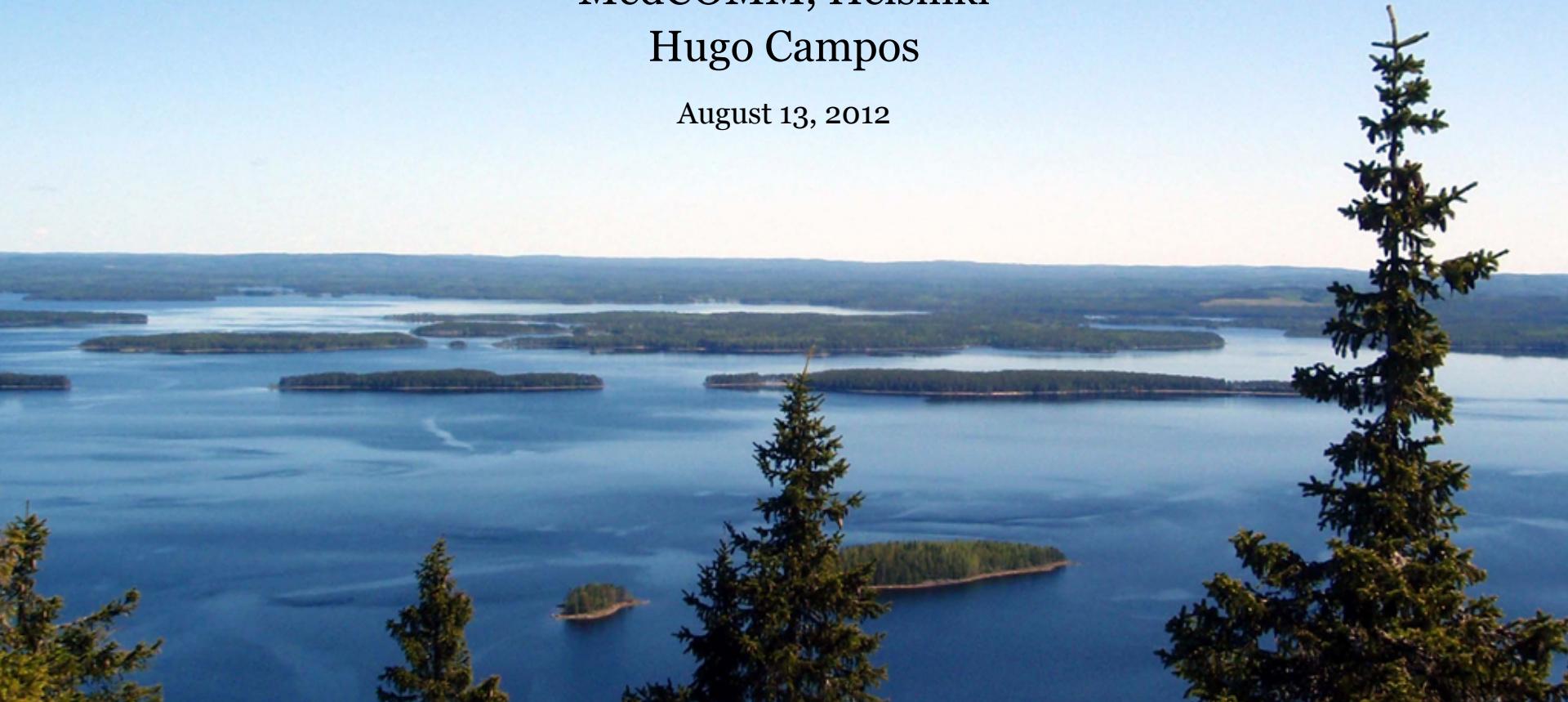
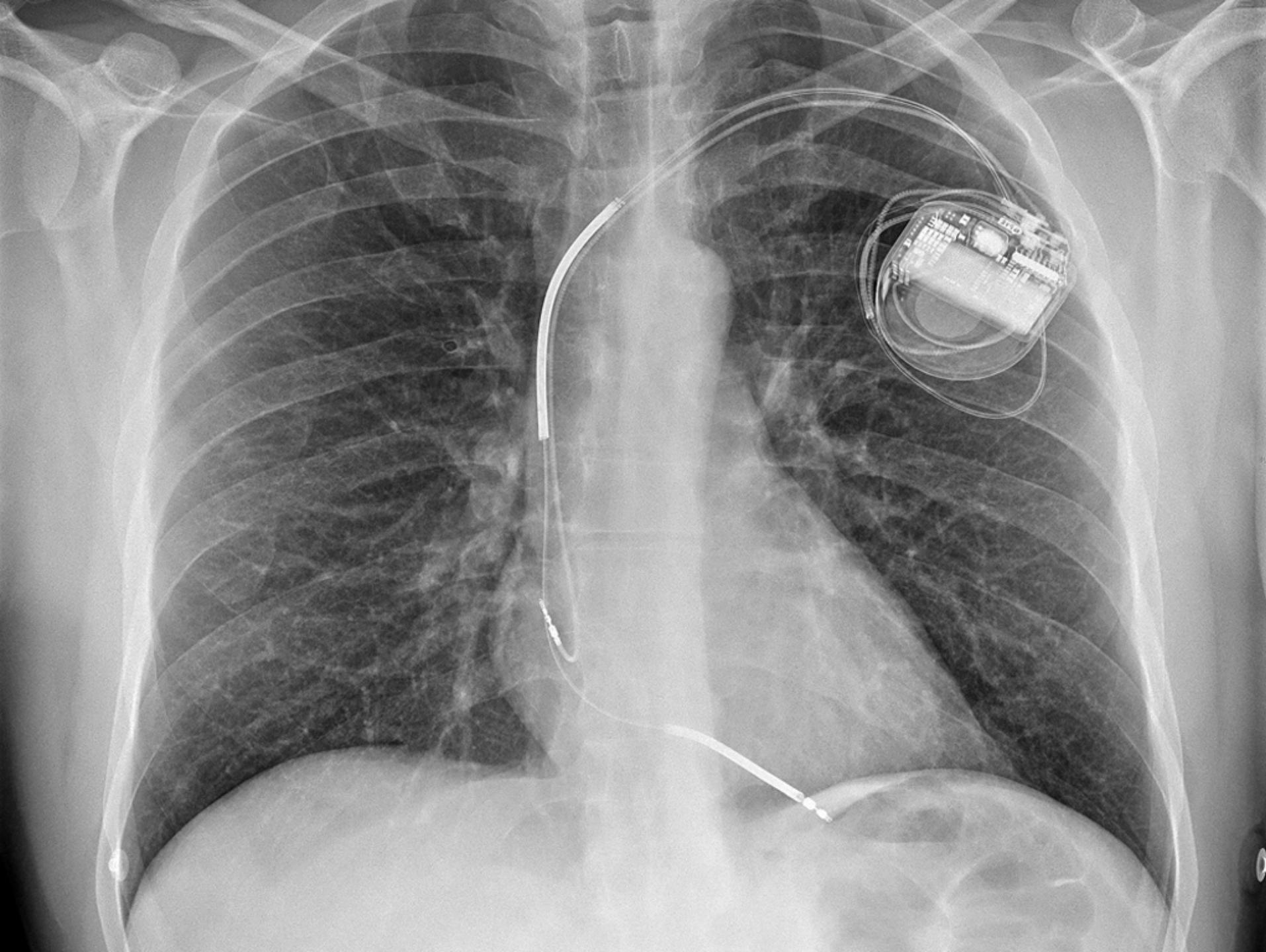


Open Access to my Heart's Data

MedCOMM, Helsinki
Hugo Campos

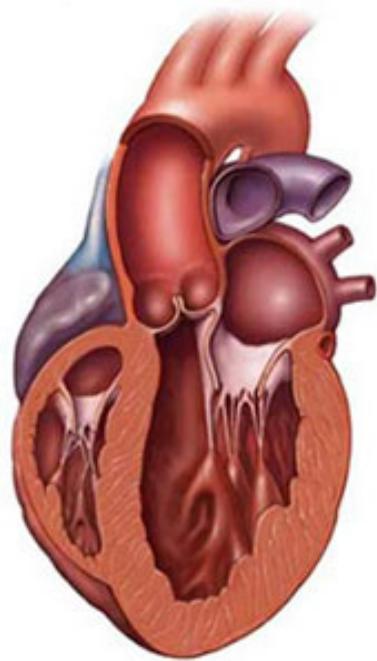
August 13, 2012



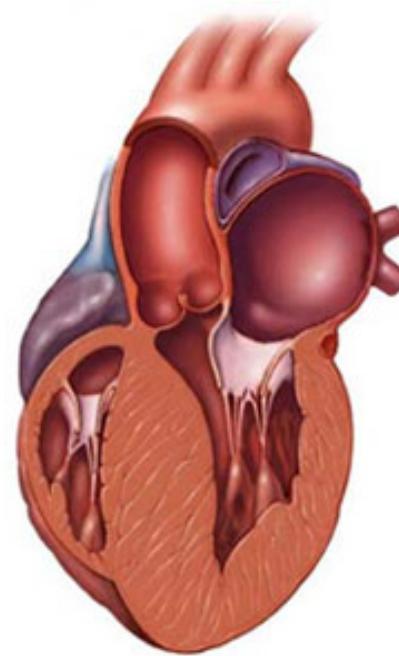




Hypertrophic Cardiomyopathy



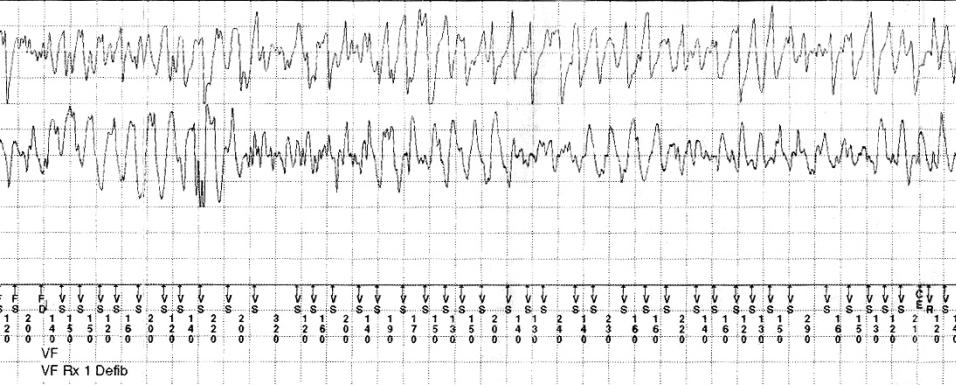
Normal Heart



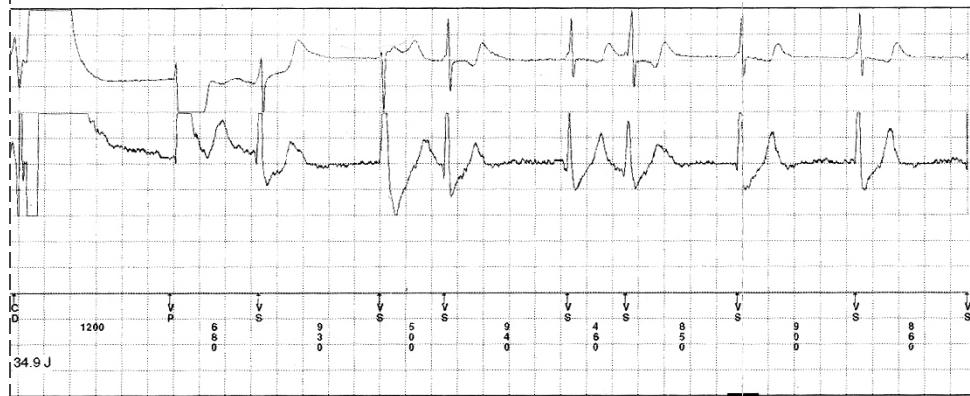
HCM Heart

1:500

Sudden Cardiac Arrest
kills *325,000* people
each year in the U.S.

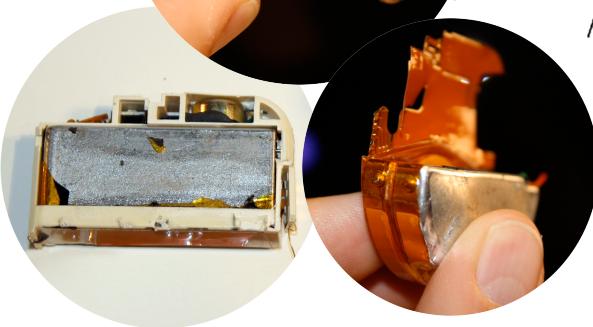
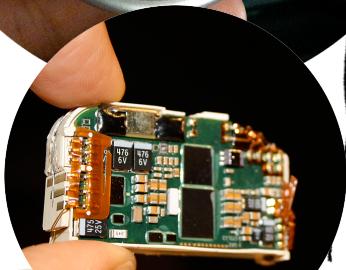


**35
Joules
Delivered**

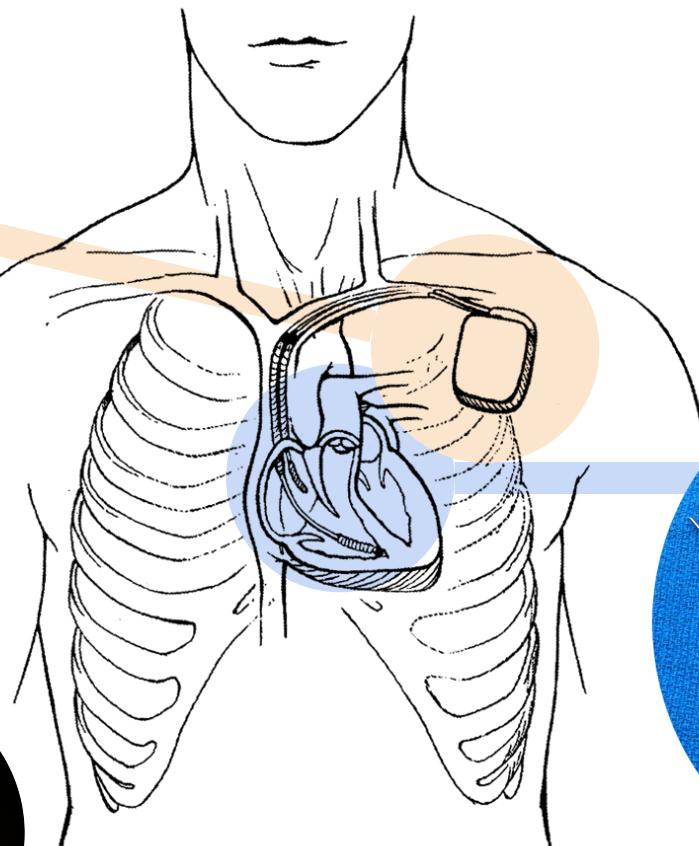
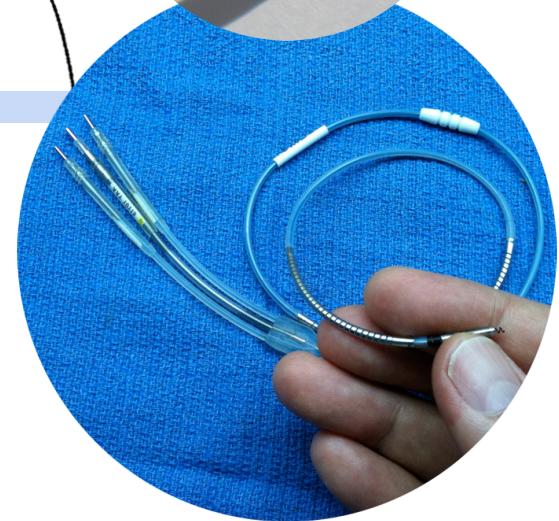


ICD System

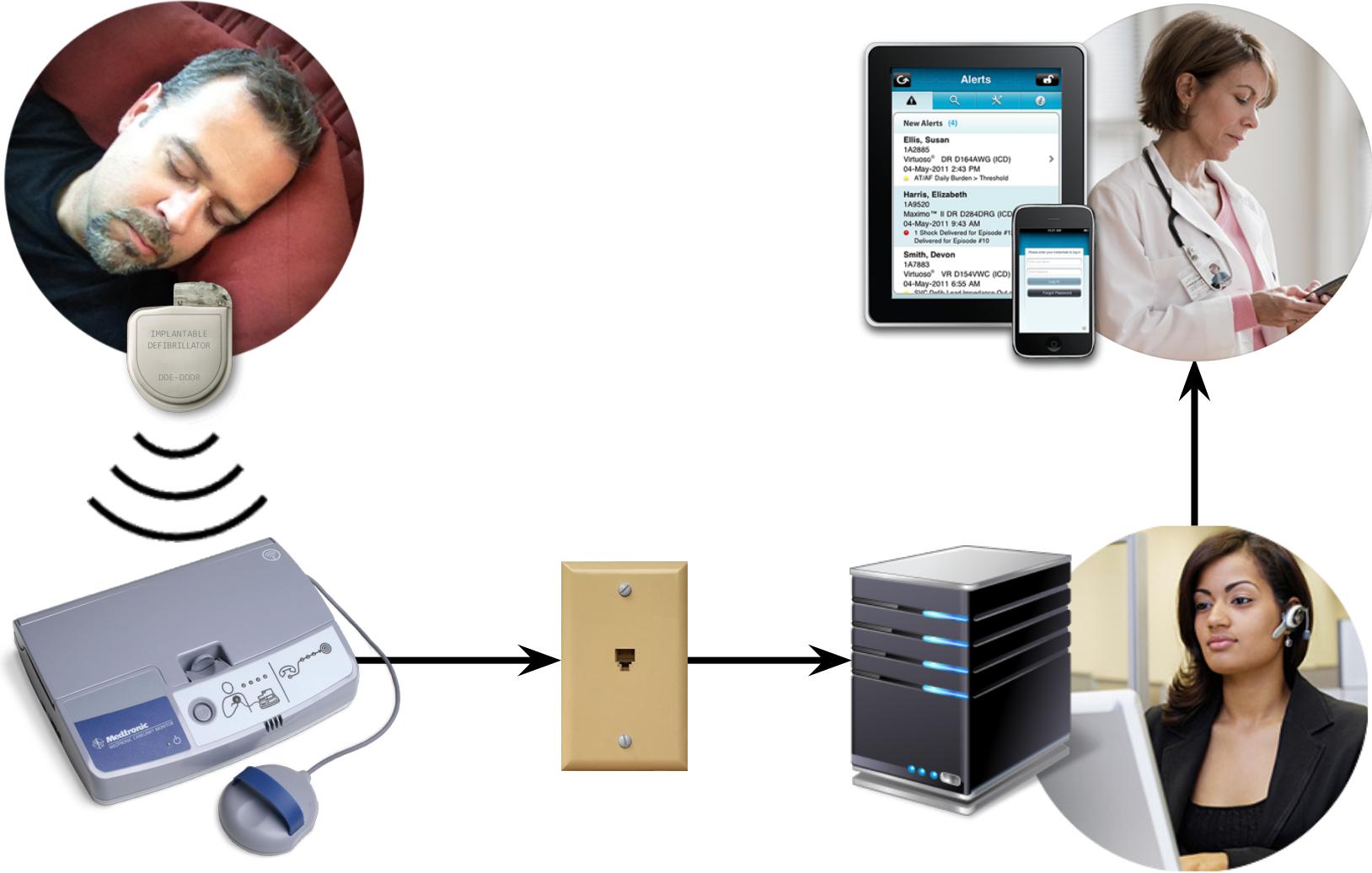
Generator



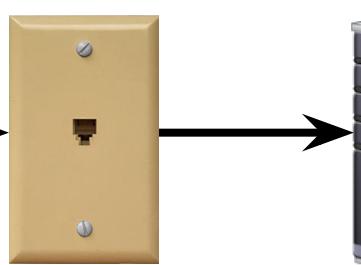
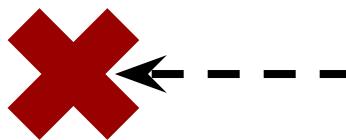
Leads



Remote Monitoring



Remote Monitoring





Patients are the ones
left in the dark.

“I had been feeling weird...
...but didn’t think much of it”



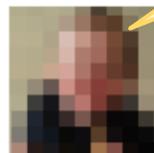
[REDACTED] · 3 hours ago

► ICD User Group



so... just went to the cardiologist yesterday because they were getting some funky readings on my home monitor and wanted to check my out. I have been feeling a little weird too, but didn't really think much of it... Well, come to find out one of my leads come out of place and they have to go back in to re-place it. Uggh!

Like · Comment



3 hours ago ·

so... just went to the cardiologist
my home monitor and wanted
really think much of it... Well,
have to go back in to re-place

Like · Comment

“I have...
...but”

ird...
of it”



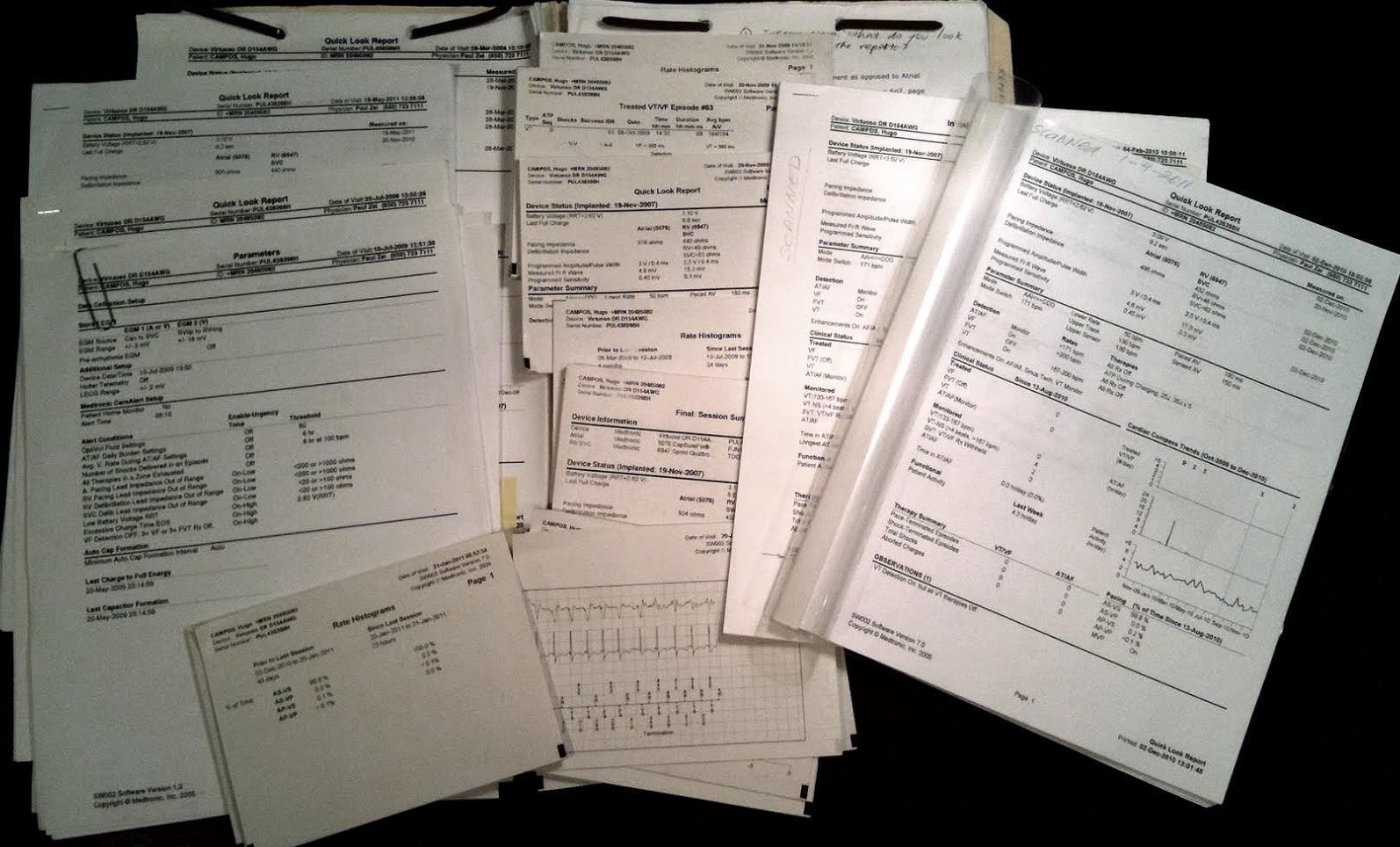
ing some funky readings on
a little weird too, but didn't
me out of place and they



Doctors' experience



Patient's experience

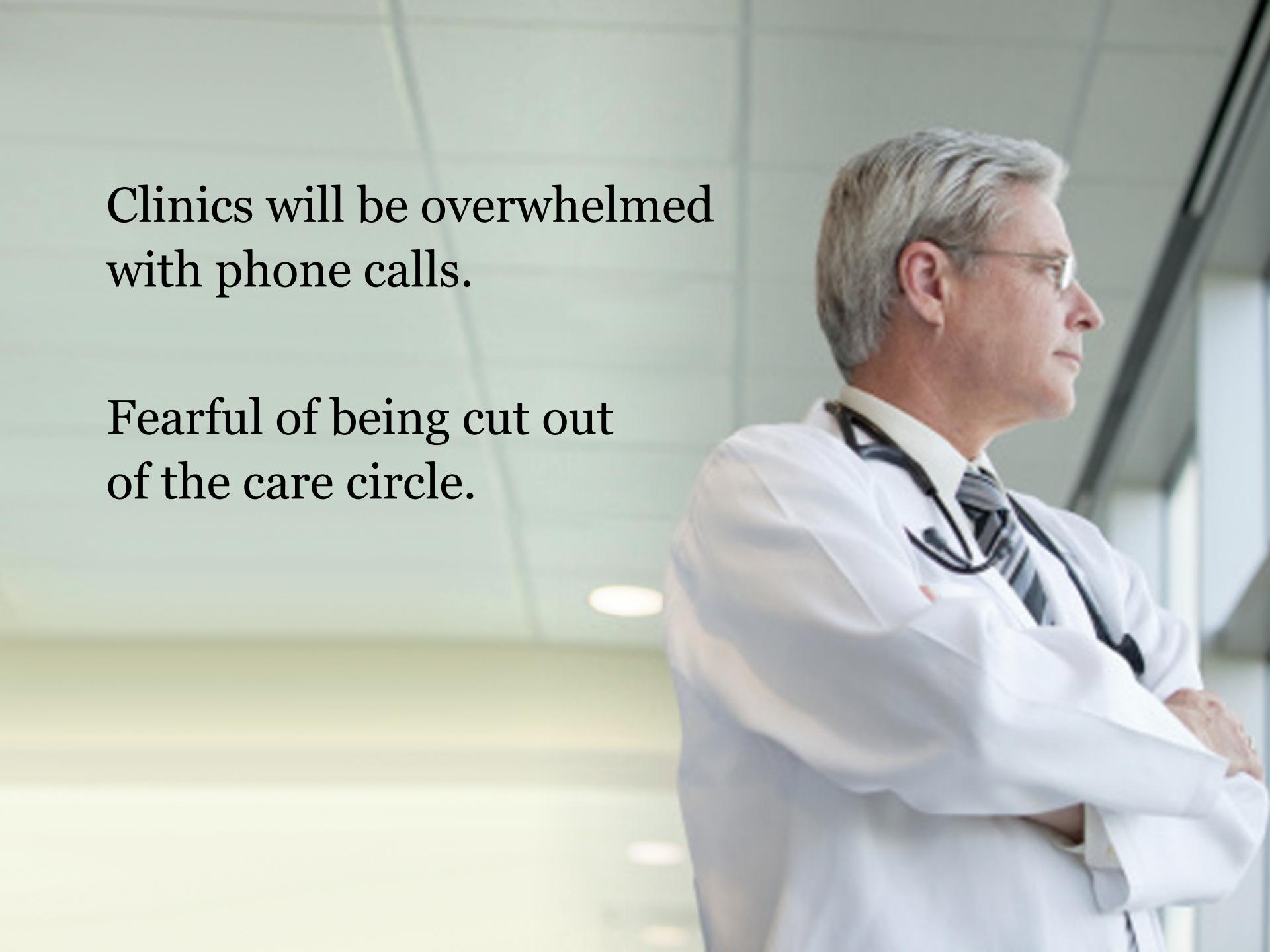




Industry:
*“It does not fit our
business model.”*



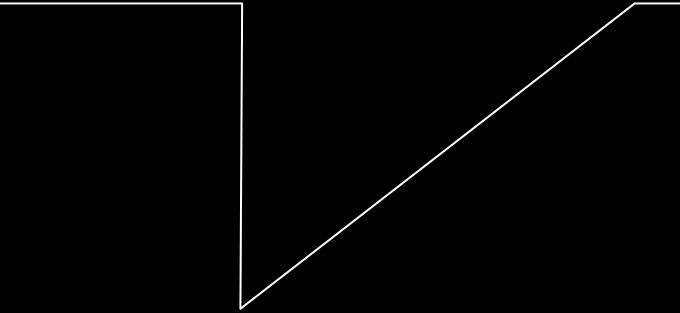
Data is too
complex and
would generate
anxiety.

A professional photograph of a middle-aged man with grey hair and glasses, wearing a white medical coat over a striped tie. He is standing with his arms crossed, looking off to the side through a large window. The background is a bright, modern interior space.

Clinics will be overwhelmed
with phone calls.

Fearful of being cut out
of the care circle.

“There is so much *value*
in the data. Our strategy
is to *exploit the data.*”



Elizabeth Hoff,
GM / Cardiac Connected Care, Medtronic
Wall Street Journal, Health Blog, 6/26/2012



Amanda H.

-----Original Message-----

From: [REDACTED]

To: "ers-crm-ps@medtronic.com" <ers-crm-ps@medtronic.com>

Subject: Medtronic Form Submission

Product: Defibrillators (Implanted)

Category: Patient, Friend or Family Member

Question/Comment: Dear Medtronic,

Dear Medtronic,

I have a Medtronic Secura DR Cardioverter Defibrillator implanted for primary prevention of SCA.

I have a CareLink monitor, which continues to send transmissions. However, I am not currently under the care of a cardiologist because I am uninsured, and so I cannot ask my provider for my CareLink transmissions.

I am aware that HIPAA guarantees my right to access my health information, and would like to request copies of all the device interrogation data collected by Medtronic over CareLink since November 17, 2010.

Thank you for your attention,

Amanda [REDACTED]





Amanda [REDACTED]

2:37 PM (8 hours ago) ☆

to me ▾

----- Forwarded message -----

From: <ers-crm-ps@medtronic.com>

Date: Fri, Aug 3, 2012 at 4:28 PM

Subject: RE: Medtronic Form Submission

Dear Amanda [REDACTED],

When you transmit via CareLink, the results of the transmission go directly to your doctor's office and are not sent to Medtronic. For this reason, you will need to contact your physician's office that you were previously at for the results.

If you are not sure which office to contact, please email again or contact Medtronic CareLink Patient Services at [\(800\) 929-4043](tel:(800)929-4043) and press option 2 for assistance. Our staff is available to take your call Monday through Friday from 8:00 a.m. to 5:00 p.m. Central Time.

Regards,

Michael-CareLink Patient Services
Medtronic, Inc.

Remote Monitoring Systems



Medtronic

Carelink

**Boston
Scientific**

LATITUDE



ST. JUDE MEDICAL™
MORE CONTROL. LESS RISK.

Merlin.net



BIOTRONIK

Home Monitoring

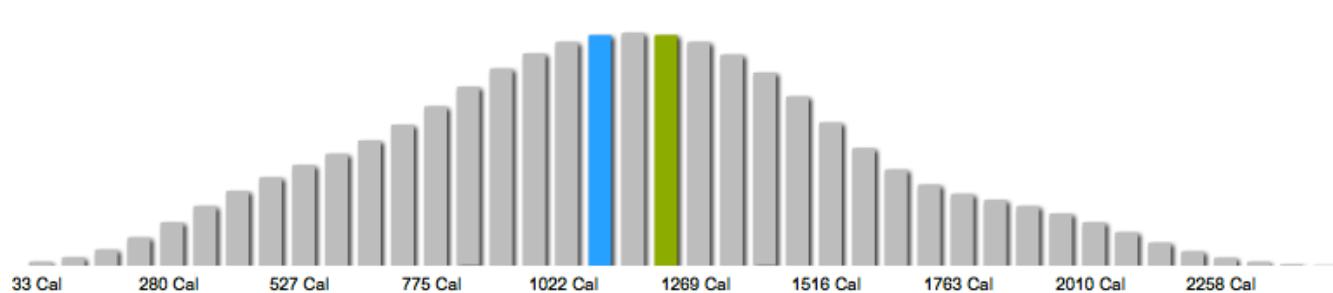
1MM+ patients on these remote monitoring networks.

Activity



\$99

Typical You



You burned about the same as

1175 Cal/day

from activity this week

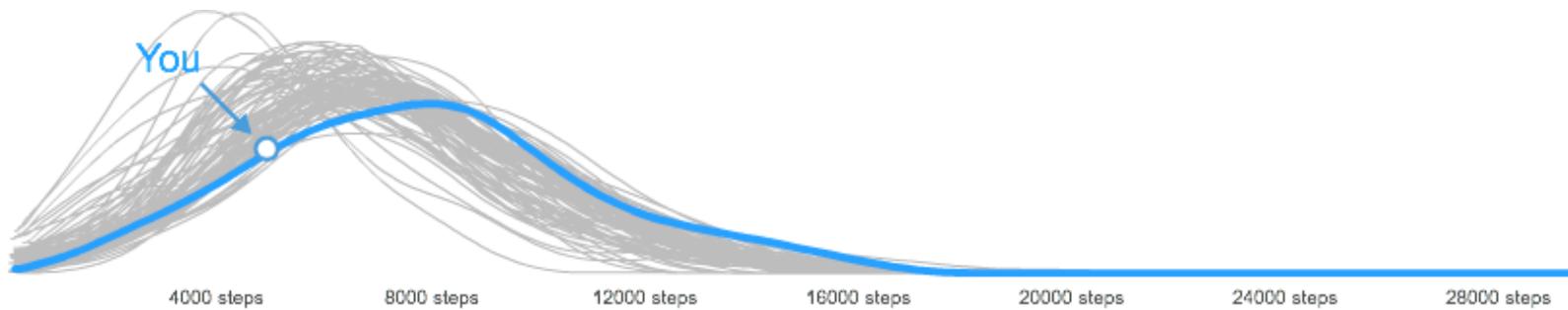
Your activity level is rated

Lightly active

You are in the

55 percentile

of all men 45 to 54 yrs who are overweight



This week you walked

5227 steps

31% less than the median for men 45 to 54 yrs who are overweight

You are in the

23 percentile

of all men 45 to 54 yrs who are overweight

Sleep



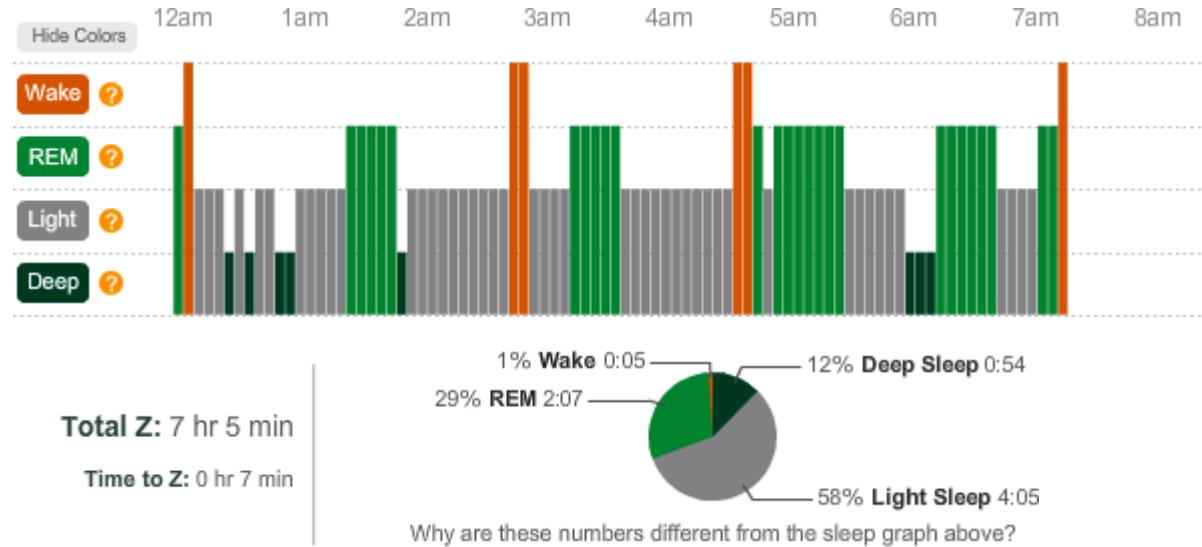
\$99

		Times to Bed	Rise	Time to fall asleep(min)	Times awakened	Actual sleep time (hr:min)	Sleep efficiency	
Sun		22:55	06:49	11min	8	7hrs 33min	98%	
Mon		22:52	07:01	11min	5	7hrs 26min	95%	
Tue		23:07	06:48	31min	10	6hrs 30min	95%	
Wed		05:30	07:18	21min	4	1hr 15min	86%	
Thu		22:30	07:15	34min	14	7hrs 16min	89%	
Fri		00:03	10:30	11min	14	9hrs 6min	89%	
Sat		23:57	15:58	2min	44	13hrs 10min	82%	
		Average	00:08	08:48	17min	14	7hrs 28min	91%

Sleep Quality

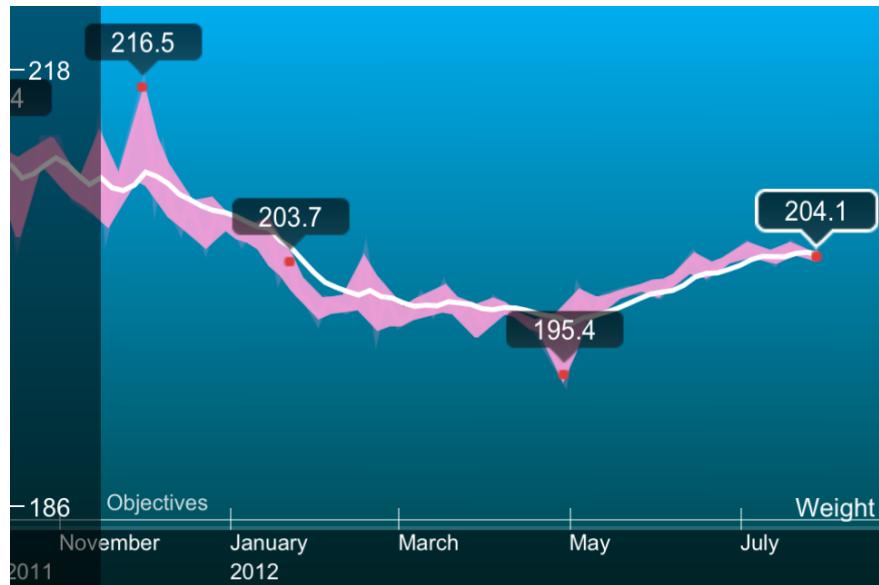


\$149

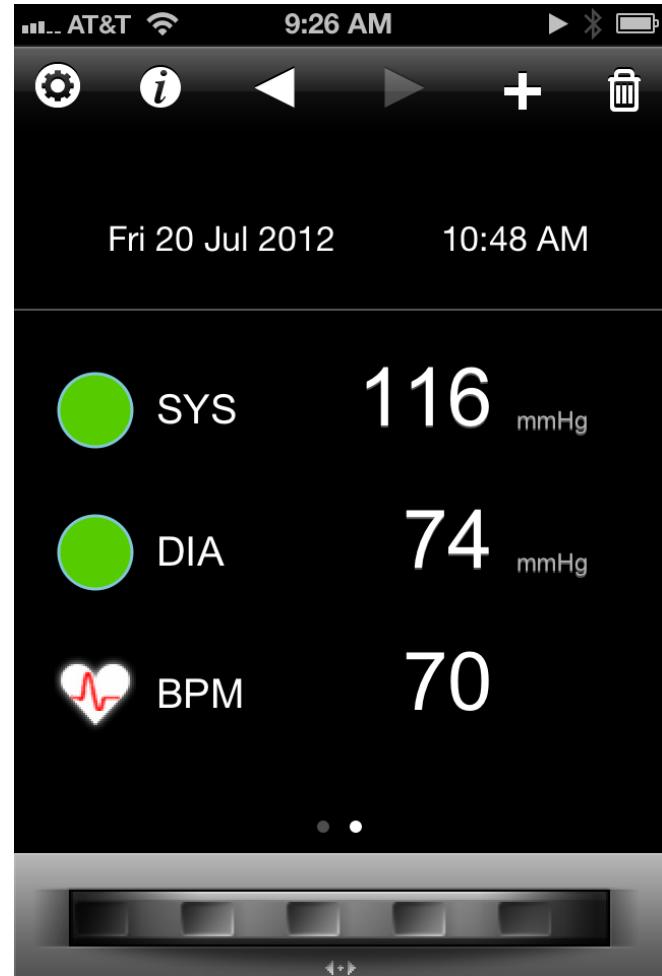
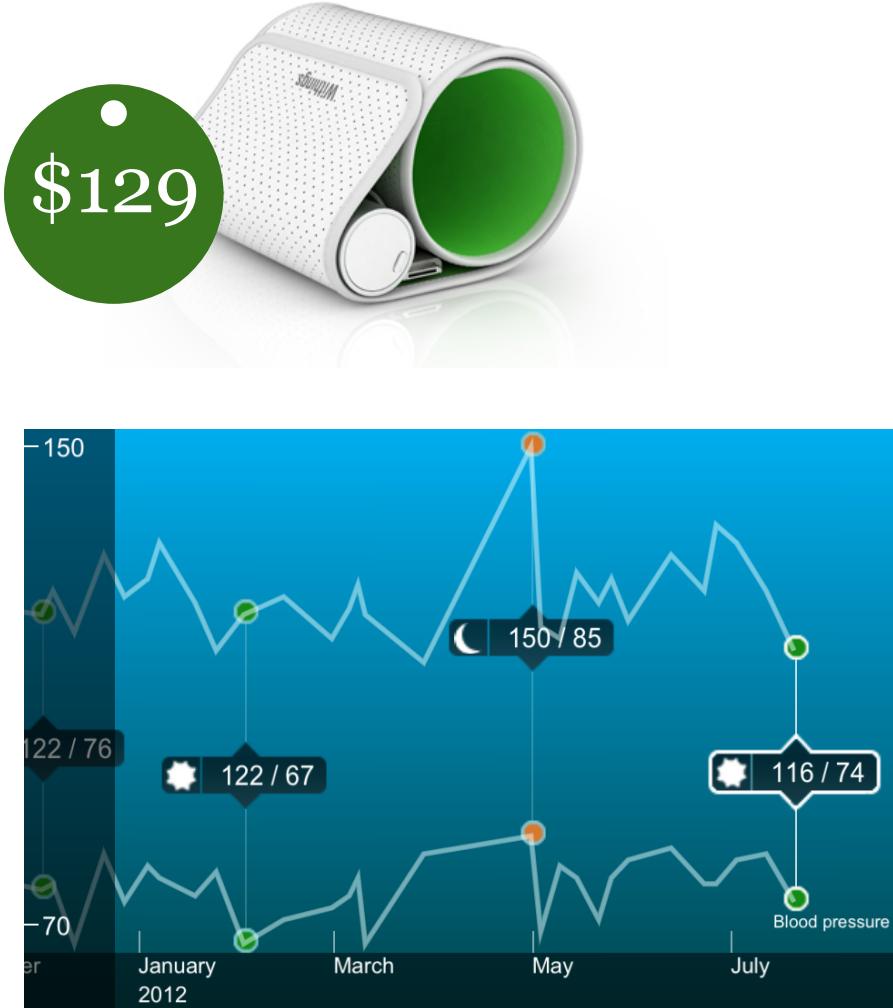


Weight

\$159



Blood Pressure



free



Microsoft®
HealthVault™

Microsoft

Your account | Sign out | Help

Hugo



Edit

Switch person

Hugo Campos

I want to ▾

46 years old, 6 ft 0 in, 204 lbs

Allergies +

There are no allergies listed for you.

Current conditions +

Hypertrophic Cardiomyopathy •

Hypertrophic obstructive cardiomyopathy

Current medications +

METOPROLOL SUCCINATE 100 TABLET, SUSTAINED RELEASE ... •

ATENOLOL 25MG TABLETS •

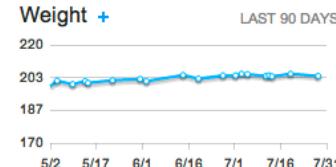
METOPROLOL SUCC ER 100 MG TAB •

METOPROLOL SUCC ER 100 MG TAB •

METOPROLOL SUCC ER 25 MG TAB

[View all](#)

Weight +



Blood pressure +



Health views

Emergency profile

Weight management



Home



Health information



Apps & Devices



Sharing



History

UPDATES

SATURDAY, JULY 28, 2012

Body Composition

Updated by [Withings](#).

Weight Measurement

Updated by [Withings](#).

FRIDAY, JULY 20, 2012

Blood Pressure Measurement

Updated by [Withings](#).

HUGO'S APPS

Fitbit

[HealthVault Message Center](#)

[Mayo Clinic Health Manager](#)

[Withings](#)

+ [Get more apps](#)



\$30,000



No data.



Ben West
github.com/bewest

“I want the ability to independently verify the *safety* and *efficacy* of my medical device.”

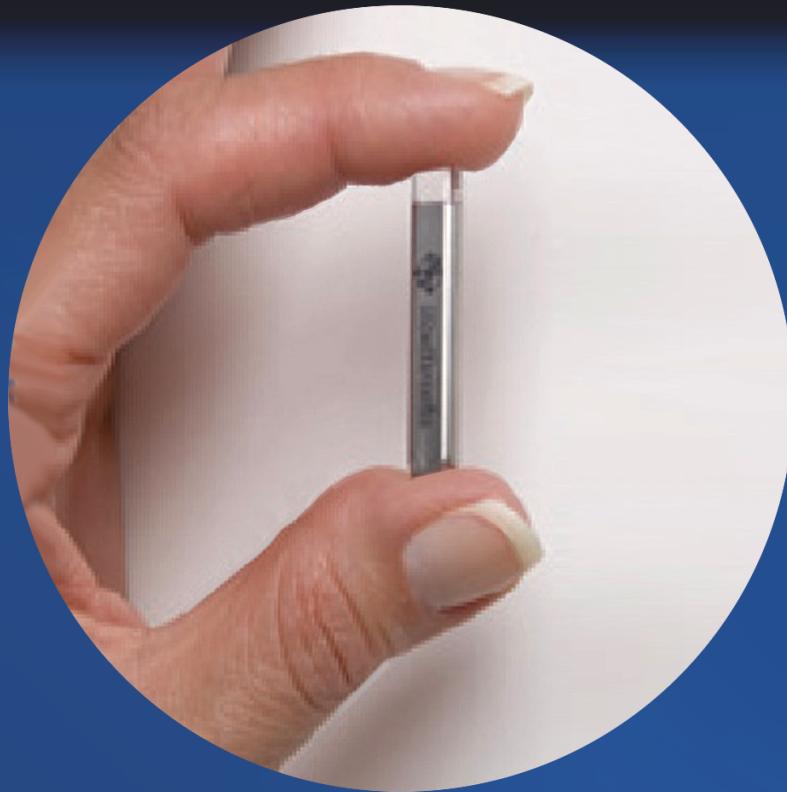


Ben West
github.com/bewest

A close-up, profile photograph of a man's face and upper torso. He has dark hair and a well-groomed beard and mustache. He is shirtless, wearing a thin gold chain necklace. His gaze is directed towards the right of the frame. His left hand is resting against his chest, fingers partially hidden by his shirtless shoulder.

What will it take for us to
have *freedom* in
our own bodies?

A device in every human





Thank you