Obesity: The Basics & Beyond
Helping our patients find their ‘weigh’

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Why I am so passionate about this topic:

33 yo with BMI=35 with symptoms in every organ system. Regain after several attempts of diet & exercise. Self-diagnosis of compulsive overeating. Treatment through “recovery” approach. Maintaining 50 lb weight loss for 10 years now.
Nearly 1/5 deaths now caused by obesity
(Columbia University August 2013)
May result in a lowering of life expectancy nationwide
Problem that is distressing to both patients and physicians
Nearly all problems seen by FPs are exacerbated by obesity:
- Cancer, CVD, Dyslipidemia, Gallbladder disease, Glucose intolerance/Insulin resistance/DM2,
- Fatty liver, Hypertension, Gout/Hyperuricemia, Menstrual abnormalities,
- Orthopedic problems, Dementia, Sleep apnea
Overweight: BMI 25-29.9
Obesity: BMI 30-39.9
Extreme (morbid) Obesity: BMI 40+
Body Composition scale or other body measurements more accurate at the upper and lower ends.
Abdominal circumference: women >35”, men >40”
Medical vs Social definition-may validate the patient
Use of words “weight/overweight” vs “obese/fat”

Motivational Interviewing: OARS: Open-ended questions, Affirmations, Reflections, Summaries
- Excellent article by Belinda Borelli on Medscape

Stages of change: Pre-contemplation, Contemplation, Preparation, Action, Maintenance
Evaluation of Complications

- DM, HTN, Dyslipidemia, Cancer, Sleep apnea, Gallbladder disease, Fatty liver, Cardiovascular disease, Gout, Osteoarthritis.
- With as little judgment as possible explain to patient which of their medical problems are caused by their weight.
Evaluation for Medical Etiology

- Thyroid abnormality: TSH, free T3, free T4
- Sleep apnea/other sleep disorder: sleep study/eval.
- Insulin Resistance: fbg, A1C, fasting insulin
- Medications: B Blockers, anti-depressants, Sulfonylureas
  - consider: HCTZ/ACE/ARB, Wellbutrin, Metformin instead
- Endocrinology workup if you still a suspect medical cause
Helping our patients find their weigh
An “EASY” Approach

E: End Result; Expectations; Eating Plan/Log; Environment; Exercise

A: Avoid Triggers; Alternate Activities; Appetite Suppressants

S: Support; Social pressures; Sleep; Surgery

Y: “YOU” (the patient): Mental and emotional factors
“EASY”: E=End Result

- Determine patient’s desired end result or motivation.
- Many patients are motivated by their family physician!
Diet + Exercise + Behavior change: 5-10 lb maintained 1-2 yrs

Appetite Suppressants + above: 10-20 lbs maintained 1-2 yrs

Bariatric Surgery: 50 lbs maintained at 5 yrs
“EASY”: E=Eating Plan & Record
Different for every person!

- Calories are still the primary factor that affect body weight.
- Body comp scale or websites determine calorie budget.
- myfitnesspal.com and myfitnesspal app for eating record.
- Macronutrients: protein, carbohydrate, fat percentages:
  Hundreds perhaps thousands of studies: no conclusion.
  Conclusion is: **Calories and Compliance** more important.
- Trigger foods/habits: Identify->limit/eliminate, cut down/out.
- Beyond what and how much: where, when, why, how and even with whom.
The end of overeating: book by Dr David Kessler

One person can’t change the “toxic food environment”

But one person can manage their own environment

Some experts such as Dr Brownell at Yale believe the solution is in an environmental, public health/public policy approach
“EASY”: E=Exercise

- NEAT=Non-Exercise Activity Thermogenesis
  Lifestyle activity, being non-sedentary
  benefit of activity tracker such as a fitbit or other

- Formal/intentional Exercise
  Strength (weight, resistance) training important
  HIT=High Intensity Interval training.

- Weight problems are 80-90% and input, not output problem.
STRENGTH:

Anyone can workout for an hour, but to control what goes on your plate the other 23 hours... that's hard work.
Abstinence may be one of the largest gaps in usual care.

For decades, lay people have believed in food addiction.

“We have more scientific evidence for food/eating addiction today than we had for other addictions when they became accepted,” food addiction expert Phil Werdel.

Food/eating affect the exact same brain areas as drugs do.

Common trigger foods: sugar, starch, salt, fat, chocolate.

Trigger habits: picking, snacking, grabbing, grazing, munching, nibbling tasting. Or binge pattern.

Trigger times, place, associated activities too.
Patients should be encouraged to develop and use a list of alternate activities that works for them:

- read books
- watch tv or movies
- talk to someone on the phone
- text, email, surf the web, play video games
- write in a journal
- organize something
- exercise
- go to sleep
“EASY”: A=Appetite Suppressants
BMI>30 or BMI>27 w/co-morbidity

* Sympathomimetics eg Phentermine: still good after 55 years, approved for “short-term treatment” (3 months).

* Qsymia: low dose phentermine with long-acting Topiramate. 
  Topiramate is associated with risk of teratogenicity.

* Lorcaserin=Belviq: Available <1yr, no long term safety data.

* Orlistat=Xenical: blocks absorption of fat; risk of liver injury.
“EASY”: S=Support

* Professional support: individual and groups:
  Family Physician, Obesity Physician, Dietitians, Counselors

* Other support-3 types of people:
  1. Never had weight/eating problem
  2. Have weight/eating problem without a solution
  3. Have weight/eating problem with a solution

* Overeaters Anonymous, TOPS, Weight Watchers
“EASY”: S=Social Pressure

* Help patients be aware of the social norms that promote overeating and obesity.

* The end of overeating. Book by Dr David Kessler.

* Help patients mentally prepare and practice refusal skills.

* Use same concepts as with alcohol, smoking, drugs, etc.
“EASY”: S=Surgery

* BMI > 40 without co-morbidity
* BMI 35-39 with co-morbidity such as DM
* Let your patient know whether they qualify
* Most surgeons have information sessions
* Gastric Bypass, Lap Band, Gastric Sleeve
“EASY”: S=Sleep

* Sleep affects weight by affecting appetite and metabolism
* Sleep study to assess for & treat sleep apnea/other disorder
* Screen for insomnia and treat accordingly
* Referral to sleep specialist when necessary
* Teach patients about sleep hygiene
“EASY”: Y=YOU! (your patient)

- YOU! Your patient’s mental and emotional wellbeing is a factor in appetite, eating, weight & metabolism

- This is probably another of the big missing gaps in usual treatment of obesity given the modest results of usual care

- Sign seen in an endocrinologist’s office: “I can balance your hormones, but I can’t help you with your anger.”

- States of emotional displeasure make abstaining from pleasurable foods more difficult. (And vice versa).
The Basics-a review:

* Diet + Exercise + Behavior Change: 5-10 lbs maint. At 1-2 yrs.
* Bariatric Surgery: 50 lbs maintained at 5 yrs.
* (Data from 2004 United Health Foundation report, "What works for Obesity?" No sig. change in data past 10y)

* Most patients & providers are “underwhelmed” by results
So, what is beyond diet, exercise, medical & surgical management?

- Environmental change/public health/public policy:
  
  Some of the leading obesity experts in the world conclude that obesity is essentially untreatable at the individual level and that environmental change is the only hope.
Switching from smoking to eating: How to avoid the next “switch”?  

**Tobacco Epidemic:**
- Change Environment
- Address Chemical
- Address Habit
- Address coping skills

**Alcohol Epidemic:**
- Address Chemical
- Address Habit
- Address Coping skills
- Change Environment
Lessons learned from alcohol & tobacco:

* Address chemical addiction (by abstaining from substance)
  Similar to: Nicotine, Cocaine, Sugar
* Address addictive habit (by abstaining from behavior)
  Similar to: Gambling, Sex, Compulsive Overeating
* Teach healthier coping skills (through counseling, etc.)
  By using: ACT, CBT, DBT, EBT, EFT, and TSF
* Change the environment (macro vs micro)
  Public Health/Public Policy; Individual home, work spaces
The Obesity Epidemic & Addiction:

Before we can apply lessons learned from addiction treatment, we first need evidence that obesity is caused, in part, by addiction

(for the skeptics)
The most compelling evidence: part 1

Low calorie foods lead to little activation in the brain reward centers

High calorie foods with high reward lead to significant activation in the brain reward centers
The most compelling evidence: part 2

**BRAIN REWARD CENTER**

What do the colors mean?

- **RED**
  - high dopamine
  - normal pleasure and interest

- **YELLOW**
  - medium dopamine
  - difficulty feeling joy or pleasure

- **GREEN**
  - low dopamine
  - lack of pleasure

*Normal brain*  
*Brain of an obese person*  
*Brain of a cocaine user*  
*Brain of an alcoholic*
The substance is often taken in larger amounts or over a longer period than was intended.

There is a persistent desire or unsuccessful efforts to cut down or control substance use.

A great deal of time is spent in activities necessary to obtain the substance (such as visiting multiple doctors or driving long distances), use the substance (such as chain smoking) or recover from its effects.

Important social, occupational, or recreational activities are given up or reduced because of substance use.

The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.

Tolerance, as defined by either of the following:

A need for markedly increased amounts of the substance to achieve intoxication/desired effect. Markedly diminished effect with continued use of the same amount of the substance.

Withdrawal, as manifested by either of the following: (a) The characteristic withdrawal syndrome for the substance (refer to Criteria A or B of the criteria sets for Withdrawal from specific substances). (b) The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms.
“I am an addiction counselor. I have kicked hard drugs, smoking, and alcohol. But the food is kicking my ass. When I am walking towards the bakery, I have the exact same sensation as when I was about to get my fix with drugs.”

“I have Diabetes and am killing myself with food, but I can’t stop eating sugar.”
In Their Own Words:

- “As an engineer, intelligence was not my problem. But I would buy 2 large subway sandwiches, eat one in the car so nobody saw me, then eat the other one with the guys at work.”

- “I have lost and kept off 140 lbs for 4 years. I play on the floor with my son.”
“I used law-school loans to buy junk food and pay for the cab to take me up the hill. I could not make it up the hill at 400 pounds. When I graduated, I could not work. There was not a business suit that would fit me.”

“I have kept off over 200 lbs for more than a decade, am married, practice law and ride my bicycle.”
“I am a physician. No amount of medical knowledge could keep me from overeating. I took care of obese patients with weight-related medical problems while my white coat pockets and desk drawers were stuffed with candy.”

“I have maintained a 50 lb weight loss for 10 yrs”
Nearly 3000 studies: animals, brain scans, genetics.

Over 30 review papers supporting food addiction.

More evidence now for food addiction than there was for drug & alcohol addiction when those became recognized as addictive substances.

(Philip Werdell, MA, Director, ACORN Recovery)

Food addiction recognized by the Director of the National Institute of Drug Abuse and many other research scientists: Wang, Hoebel, Gold.
An Obesity expert and an addiction expert team up:
From the experts:
Dr David Kessler-Former Head of the FDA:
Certain substances and behaviors
(alcohol, cocaine, heroin,
overeating, gambling, smoking, shopping, exercise)

*Have been shown to share common:*
- Brain chemistry
- Psychosocial factors
  - Complications
  - Consequences
  - Natural history
- Addiction “hopping” or “switching”

Howard J. Shaffer, Ph.D., Harvard Addiction Specialist
The question is no longer whether compulsive overeating and even food addiction exists.

We can try to move beyond this debate and stop waiting for more evidence than we already have.

Let’s have the courage to begin identifying and helping those with this problem, instead of waiting for a larger mountain of “evidence.”
Addressing Compulsive Eating and Food Addiction on a proposed spectrum:

1. Stress & emotional eating (may be binge or graze pattern)
2. Compulsive and impulsive overeating (may be binge or graze pattern)
3. Mindless and dissociative eating (may be binge or graze pattern)
4. Food/sugar/carb/fat/salt/wheat chemical/physical addiction (binge or graze)
Addressing Compulsive Overeating in Obesity

- Mild cases may be early and respond to counseling/therapy to address emotional eating (CBT/DBT, etc).

- Especially refer to counseling if known hx of trauma, abuse, loss, neglect, or mood disorders.

- Early/mild cases may also respond to mind-body medicine, stress reduction, mindfulness meditation and relaxation skills to address stress eating.
Dealing with the environment:

- Similar to other addictions
- We won’t do it if it’s not there.
- We also won’t do it... if we’re not addicted.
- So, the environmental approach is only a partial one
- Public policy/regulation, etc.
- Did not work with prohibition of alcohol.
- Correlated with population switching to overeating when using environmental approach to smoking.
Dealing with the environment at the individual level:

* Similar to quitting smoking, or drinking
* Keep the offending substance unavailable
* Get triggering foods out of house
* Don’t keep dishes of candy, nuts, etc. around if a problem.
* If necessary in early recovery, avoid restaurants, supermarkets (use peapod), take alternate routes (Dr. Kessler avoids food court in SF airport)
Addressing mindless eating:

* Food logging—strongly supported by NWCR data.
* Plan what you eat, eat only what you planned.
* Don’t eat while doing anything else.
* Don’t do anything else while eating.
* Eat at a table meant for eating.
* Mindless eating is a symptom of stress.
* See book by Brian Wansink, “Mindless Eating.”
A plan of eating is different from a diet.
A diet is imposed from the outside.
A plan of eating is created from the inside out.
A plan of eating is individual. No two are identical.
It looks at what foods, ingredients, times, places, patterns, amounts, etc trigger compulsive overeating.
These triggers are eliminated from the plan of eating.
Because the brain is plastic, the plan of eating will get easier and easier to follow as triggers are avoided.
Social: 3 types of people:
1. Never had a problem w/ obesity/eating
2. Have a problem but no solution
3. Have a problem and a solution

Professional: physicians, dietitians, therapists/counselors

12-step programs: Twelve step facilitation is now evidence based practice for alcohol and drugs after the project MATCH trial. It is a ‘logical leap’ to refer to Overeaters Anonymous as with other addictions.
Websites for additional information for you and your patients

* [www.foodaddictionsummit.org](http://www.foodaddictionsummit.org) Full video from food addiction summit with multiple scientific experts.
* [http://foodaddictioninstitute.org](http://foodaddictioninstitute.org) Resources for professionals and patients about food addiction.
* [http://foodaddictionresearch.org](http://foodaddictionresearch.org) Home of FARE Food Addiction Research Education.
* [https://sites.google.com/site/foodaddictionlibrary/](https://sites.google.com/site/foodaddictionlibrary/)
Websites about Overeaters Anonymous for you and your patients

* [www.oa.org](http://www.oa.org) Official worldwide service body for Overeaters Anonymous (podcasts, etc)

* [www.voiceamerica.org](http://www.voiceamerica.org) Soundbites from Overeaters Anonymous is an archived informational radio show

* [www.oalaig.org](http://www.oalaig.org) Many hundreds of recorded speakers from the Los Angeles area who are recovering in OA share their experience, strength and hope
The Basics: Diet, Exercise, Medical & Surgical Management first.

If behavioral, medical, surgical management fails, then the patient is likely on the spectrum of compulsive overeating/food addiction.

Let’s try to end the ‘debate’ about whether compulsive overeating/food addiction exists.

Let’s move into identifying and helping those with the problem.
Recovery from compulsive overeating
How to row into recovery:
What happens when we row with 1 oar?

One “Oar” involves dealing with the food plan or plan of eating: “trigger foods.”

Never row alone!
‘Rowing’ with others and asking for and receiving help is crucial!

One “Oar” involves dealing with feelings, emotions, and stress: “trigger moods.”
Addressing Obesity
The Basics and Beyond

Behavioral Approaches

Surgical Approaches

Medical Approaches

Addiction Approaches
What else can Family Physicians do?

- Have patient education materials available in the waiting room.
- The local Overeaters Anonymous chapter may provide pamphlets or other materials.
- Free downloadable mini-posters are available which can be placed in bathrooms or waiting rooms:
  - http://www.oa.org/pdfs/OAPoster_FORK.pdf
Residential Treatment Options:

* ACORN Recovery Services [www.foodaddiction.com](http://www.foodaddiction.com)
* Milestones [www.milestonesprogram.org](http://www.milestonesprogram.org)
* Timberline Knolls [www.timberlineknolls.com](http://www.timberlineknolls.com)
* Shades of Hope [www.shadesofhope.com](http://www.shadesofhope.com)
* COR Retreat [www.cormn.org](http://www.cormn.org)
* Life Healing Center [lifehealingcenter.crchealth.com](http://lifehealingcenter.crchealth.com)
* Turning Point of Tampa [www.tpoftampa.com](http://www.tpoftampa.com)
* Caron Foundation [www.caron.org](http://www.caron.org) (may include food addiction treatment at their facilities)
How I explain recovery to patients using the brain images

- Low Dopamine in reward circuits means:
  “We eat over what is eating at us”

- To get from low Dopamine to high Dopamine:
  “We have to face our stuff so we don’t stuff our face”

- High Dopamine in reward structures means:
  “Peace of mind protects from piece of cake”
A scientific or alternate interpretation of 12 step recovery:

1. Admitted our brain looked like this
2. Found out about neuroplasticity
3. Were willing to change our brain
4. Wrote down why our brain was yellow
5. Talked to someone we trusted about it
6. Became willing to change our reactions
7. Changed what caused ‘yellow brain’
8. Listed people we hurt including ourself
9. Made amends to ourselves or others
10. Continued steps 1-9 daily
11. Practiced mindfulness daily
12. Having a brain change, we shared it
Obesity: Basics & Beyond
QUESTIONS (& answers)