

Food is Medicine for Eating Disorders

Carolyn Coker Ross, MD, MPH
 Chief of Eating Disorders Program
 Head of Integrative Therapies
 Sierra Tucson
drross@sierratucson.com
 520-624-4000 ext. 2374

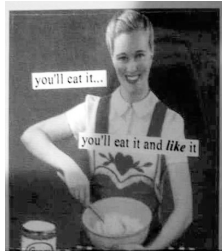
What does food mean to us?

- Food is love
- Food is fuel
- Food is pleasure
- Food is family



What food means to eating disorder patients

- Food is fattening
- Food is frightening
- Food is numbness – emotions, pain
- Food is control
 - "Haven't you had enough calories?"
 - Starving kids in China



Shifting the relationship with food

- Food is medicine
- Food is legal
- Food is nurturance and all the other things you may want to deprive yourself of








[

*One-quarter of what you eat keeps you alive.
The other three-quarters keeps your doctor
alive.* (Hieroglyph found in an ancient Egyptian tomb)

*The doctor of the future will no longer treat the
human frame with drugs, but rather will cure
and prevent disease with nutrition.* *Thomas Edison*

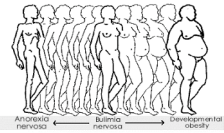
[Eating Disorders]

- 7 million females
 - 5-3.7% of females have AN
 - 1.1-4.2 % have BN
 - 2-5% - B.E.D.
- 1 million males with AN
- 10-25% of those with AN will die as a direct result of the disease
- 19% of college-aged females are bulimic
- 35% of US population is obese



[Definitions of Eating Disorders]

- Weight preoccupation and excessive self-evaluation of weight and shape
- 50-64% of anorexics develop bulimic behaviors / bulimics often begin to restrict



[Eating Disorders]

- Have one of the highest mortality rates of all psychiatric diagnoses
 - SMR = 11.6 for anorexia; 1.3 for bulimia
 - SMR for suicide in anorexia = 56.9
 - Severity of alcohol use was associated with increased risk for mortality
 - Hospitalization for an affective disorder was protective from mortality
 - Keel PK, et al. Arch of Gen Psych. 2/2003;60(2)

[Common Co-Morbidities]

- Major Depressive Disorders
- Anxiety Disorders: ADHD, OCD, Panic
- Medical Complications
- Personality Disorders
- Social Phobias
- Substance Use Disorders

[Integrative Approach to ED]

- Superficial layer of symptoms: ED, CD, etc.
- Emotional Soup
- Sensate level – What I feel in my body
- Core Beliefs – My guiding principles
- Deepest Urges of the Soul, Passion, Spirit

[Starvation Studies]

- Starvation studies and semi-starved prisoners of war:
 - food preoccupation, food hoarding, abnormal taste preferences, binge eating and other Sx of appetite dysregulation
 - Mood disorders: depression, obsessiveness, apathy, irritability and personality changes
 - Ancel Keys, 1950

[Starvation Studies]

- Severe illness → malnourished patients
 - Psychological effects: depression, anxiety, irritability, apathy, poor sleep, loss of concentration
 - Study of 22 patients with GI disease:
 - Nutritional status had dramatic effect on psychological parameters (POMS)
 - Stanga Z, et al. 2007

[Newer Pieces to the Puzzle]

- SPECT scans in anorexics show decreased cerebral blood flow in multiple areas of the brain associated with
 - Emotional stability, social function, Learning and memory (temporal)
 - Impulsivity and Attention (prefrontal cortex)
 - Worry and Obsessiveness (cingulate system)
- Scans showed improvement with weight restoration

[Components of an Integrative Approach to ED]

- | | |
|---|--|
| <ul style="list-style-type: none"> ■ Nutrition Program: <ul style="list-style-type: none"> ○ Shift relationship ○ Improve autonomy ○ Decrease distractions ○ Digestion/Absorption ○ Beginning to work on issues increases ED behaviors ■ Psychotherapy <ul style="list-style-type: none"> ○ Gain insight into behaviors ○ Food/mood ○ Body image ○ Getting at root causes | <ul style="list-style-type: none"> ■ Exercise <ul style="list-style-type: none"> ○ Learn healthy behaviors ○ Get in touch with physical body ○ Learn body cues ■ Nutraceuticals <ul style="list-style-type: none"> ○ Support medication effects ○ Decrease side effects ○ Special qualities for ED |
|---|--|

[Integrative Approaches to ED]

- | | |
|--|--|
| <ul style="list-style-type: none"> ■ Psychometrics <ul style="list-style-type: none"> ○ Early identification of Axis I and II diagnoses ○ Inform treatment approaches ■ Integrative Therapies <ul style="list-style-type: none"> ○ Emotional release ○ Deep relaxation ○ Integration of mind-body | <ul style="list-style-type: none"> ■ Pharmaceuticals <ul style="list-style-type: none"> ○ Judicious use reduces numbness and allows therapist to see real emotions and clear diagnosis (ADD, Mood disorders related to nutrition) ■ Skills training <ul style="list-style-type: none"> ○ Practical skills ○ Treatment of Axis II issues |
|--|--|

[Components of an Integrative Approach to ED]

- | | |
|--|---|
| <ul style="list-style-type: none"> ■ Nutrition Program: <ul style="list-style-type: none"> ○ Shift relationship/autonomy ○ Digestion/Absorption ○ Nutrition-induced mood disorders ○ Beginning to work on issues increases ED behaviors | <ul style="list-style-type: none"> ■ Nutraceuticals <ul style="list-style-type: none"> ○ Support medication effects ○ Decrease side effects ○ Special qualities for ED ○ Use of nutraceuticals, decreases distractions from trauma work, less somatization, fewer complaints about bloating, constipation, etc. |
|--|---|

Nutritional approaches to the ED patient

- Overall approach
- Dietary supplements:
 - Addressing missing nutrients with
 - Addressing the symptoms of the eating disorder
 - Addressing symptoms of co-morbid conditions

Nutritional Approaches

- Nutrition information/education
- Patterns of eating:
 - Random and chaotic
 - Rigid and ritualistic

Nutrition approach - IBW

- Affect of IBW on cognition, mood and ability to participate in treatment
- % IBW vs. BMI
- Relapse predictor

Nutrition approaches

- Priority to treat life-threatening issues above all else in hierarchy
- Control issues
- Surrender must apply to food first

Who 1st said: "Food is Medicine?"

1. Dr. Andrew Weil in his book: "8 Weeks to Optimum Health"
2. Dr. Carolyn Ross in her weight management program "Naturally Fit" in 1987

Hippocrates

"Let thy food be thy medicine, and let thy medicine be food."

- Protein
 - Protein supplementation led to decrease in bingeing
 - Latner and Wilson, 12/2004
- Nutrient Density
 - Nutrient dense diet decreased binge eating behavior.
 - Dalvit-McPhillips, 1984
- Sugar:
 - Ingestion of sugar correlated with mood and urge to binge
 - Blouin, 1993

Dietary Deficiencies: B-Vitamins

- Deficiencies of B-vitamins found in eating disorder patients
- Anorexia - ? Subclinical form of pellagra
- Niacin may improve appetite and mental status
- Pyridoxine may play a role as a hormone balancer.

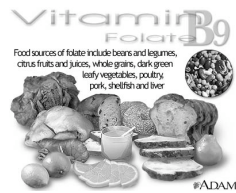
B-Vitamins - Research

- Low B12 and FA noted in patients with depression and in alcoholics who can have SIMD



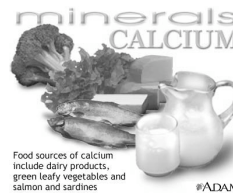
Folate

- Folate increases the effectiveness of antidepressants but may not be effective alone. Taylor, M.J., et al.
- Low folate levels implicated in poor response to antidepressant therapy Coppen A.



Supplements: to replace missing nutrients

- Food sources of calcium



- Food sources of zinc:
Oysters
Fortified breakfast cereal
Lean meats
Yogurt
Beans
Nuts and seeds

Supplements

- Digestion & Absorption:
 - Enzymes: Thorne or Tyler
 - Probiotics: Lactobacillus GG (www.culturelle.com)
 - Deficient in patients with chronic constipation
 - Hongisto, 2005
 - With fiber → decreased constipation and bloating
 - Khalif, 2005
 - IBS
 - Kajander, 2005

Dietary Supplements

Omega-3 fatty acids are found in oily fish like salmon and flaxseed and canola oils



- Low omega-3 & 6 found in anorexics
 - Holman RT-1995
 - Langan SM -1985
- Omega 3 supplementation → increased appetite in AN
- Zinc and EFA deficiency:
 - EFA's are important in zinc absorption
 - Zinc necessary for EFA metabolism
 - Conversion of LA to GLA
 - Synthesis of PG's
 - Horrobin DF -1980

[Research – Omega 3 FA]

- Lower DHA and higher Omega 6:3 ratios were predictive of suicide attempts Mann JJ, 2006
- Omega-3 FA helpful in medication-refractory depression Nemets B 2002
- DHA may reduce postpartum depression Hibbeln J 2002

[Dietary Supplements]

L-Tryptophan → Tryptophan → 5HTP → Serotonin → N-acetyl serotonin → Melatonin

Serotonin: regulates sleep, pain, appetite, intestinal function, anxiety and depression.

Food sources of tryptophan: chocolate, turkey,



[Tryptophan]

- Blood tryptophan is lower in anorexic
- Serotonin: 5-HTP is a precursor
 - Cangiano C, 1992
 - Cochrane Database
 - Weltzin TE, 1995
 - Brewerton TD, 1994
 - Mira M, 1989
- Bulimics have impaired satiety responses related to serotonin and abnormal responses to transient changes in serotonin
- Uses:
 - Sleep
 - Refractory depression

[Chromium]

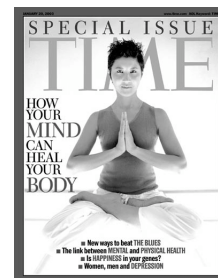
- Chromium supplements may reduce carbohydrate cravings of atypical depression Docherty JP, Sept 2005

[Other consequences of malnutrition]

- Active bulimia associated with polycystic ovaries
- Males with anorexia may have low testosterone → decreased lean muscle mass
- Amenorrhea secondary to low estrogen in anorexics

[Mindful approach to meals]

- Ceremonies and rituals → sacred place for food
- Modern culture: Fast Food Nation
- Mindfulness

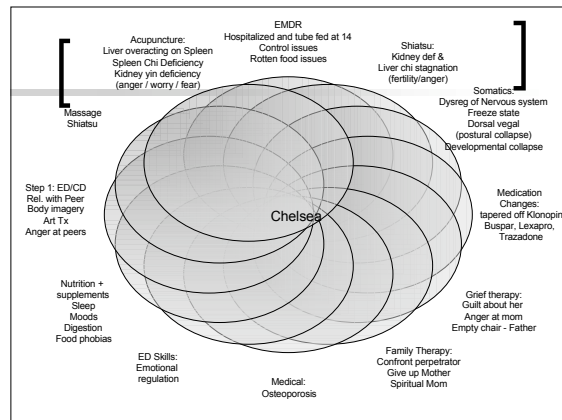
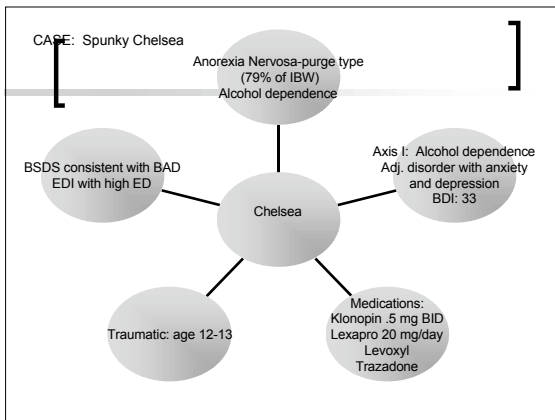


Forming a more whole-person view of eating disorders

- Ayurveda and the doshas
 - Focus on inherent constitution vs. external appearance
 - Standards based on observation not culture / media
 - Stood the test of time
 - Appearance is part of a whole system of care – food, activity, inner spiritual work

5- Element Acupuncture

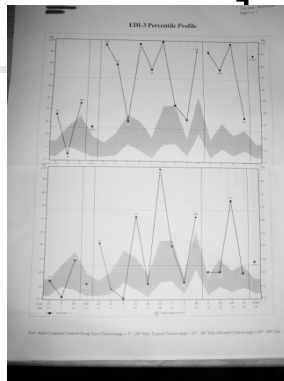
- Metal constitution: Anorexia
- Water: Depression, trauma
- Wood: Alcohol, cocaine abuse, anger issues
- Earth: Co-dependency



Progress in Tx and RISKS

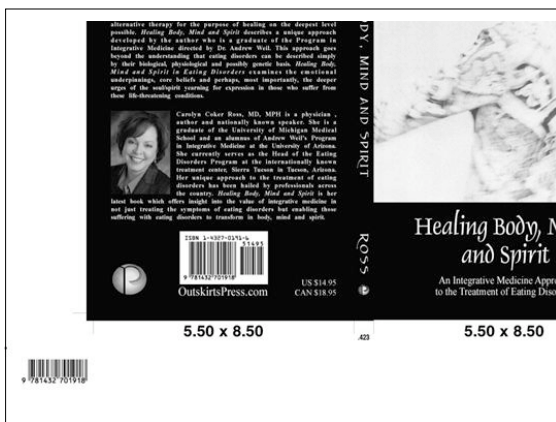
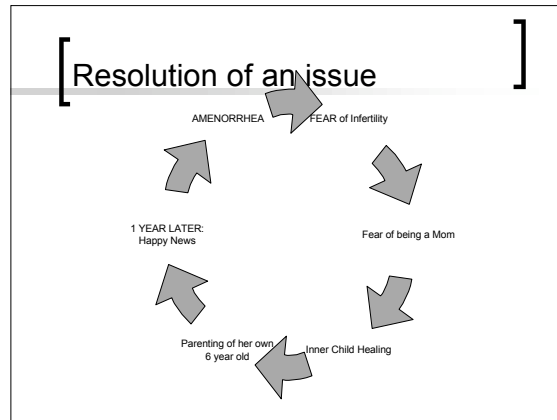
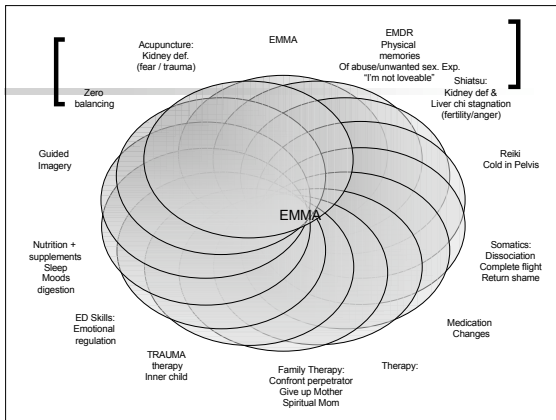
EDI-3 on admission

EDI-3 on discharge



Progress in Tx

- Admission weight = 79% of IBW / Discharge = 85.8%
- Symptoms of constipation / night sweats – relieved
- Continued insomnia but improved
- Tapered off Klonopin
- BDI on admission = 33 / on discharge = 16



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