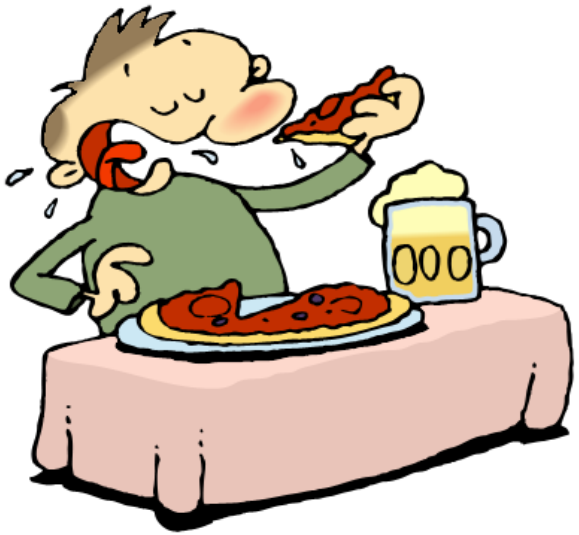


Feeding and Eating Disorders

Dr. Szilard Hamvas

Diagnosis

Changes in the diagnostic criteria (DSM-IV, DSM-5)

DSM-IV „Eating disorders” chapter

- Anorexia nervosa (F50.0)
- Bulimia nervosa (F50.2)
- Eating Disorder Not Otherwise Specified (EDNOS) (F50.9)

In DSM-IV listed among „**Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence**” chapter („Feeding and Eating Disorders of Infancy or Early Childhood”)

DSM-5 „ Feeding and Eating Disorders” chapter

- Pica (child: F98.3, adult: F50.8)
- Rumination disorder (F50.8)
- Avoidant/Restrictive Food Intake Disorder (ARFID)
- Anorexia nervosa (F50.0)
- Bulimia nervosa (F50.2)
- Binge eating disorder (F50.8)
- Other Specified Feeding Disorder(F50.8)
- Unspecified Feeding or Eating Disorder(F50.9)

This chapter is no longer in DSM-5.
Pica, Rumination and Avoidant/Restrictive Food Intake Disorder are listed together with eating disorders, in a new chapter: **Feeding and Eating Disorders**.

DSM-5

- The DSM-5 includes **changes** from the previous DSM, which **aim** to represent better the behaviours and symptoms of people dealing with eating disorders.
- In order to do this there are updated clinical classification categories for eating disorders, and changes to diagnostic criteria (symptom lists).
- One of the most notable changes is that **Binge Eating Disorder (BED)** has been acknowledged as a separate diagnosis for the first time. This will help increase awareness of the differences between Binge Eating Disorder and the more common issue of overeating.

DSM-5

- Additionally, the category that was known as **Eating Disorder Not Otherwise Specified (EDNOS),** has been removed.
- There are two new categories; **Other Specified Feeding or Eating Disorder (OSFED)** and **Unspecified Feeding or Eating Disorder (UFED).** These new categories are intended to more appropriately recognise and categorise conditions that do not more accurately fit into Anorexia Nervosa, Bulimia Nervosa, BED, or the other eating and feeding disorders.
- It is important to note that *these new categories are not an indication of a less severe eating disorder, simply a different constellation of symptoms.*
- Another significant change is the inclusion of some types of '**Feeding Disorders'** that were previously listed in other chapters of the DSM, and now listed together with eating disorders.

Pica

According to the DSM-5 criteria, to be diagnosed with Pica a person must display:

A. Persistent eating of non-nutritive substances for a period of at least one month.
B. The eating of non-nutritive substances is inappropriate to the developmental level of the individual.
C. The eating behaviour is not part of a culturally supported or socially normative practice.
D. If occurring in the presence of another mental disorder (e.g. autistic spectrum disorder), or during a medical condition (e.g. pregnancy), it is severe enough to warrant independent clinical attention.

- Note: Pica often occurs with other mental health disorders associated with impaired functioning.

Rumination Disorder

According to the DSM-5 criteria, to be diagnosed as having Rumination Disorder a person must display:

A. Repeated regurgitation of food for a period of at least one month Regurgitated food may be re-chewed, re-swallowed, or spit out.
B. The repeated regurgitation is not due to a medication condition (e.g. gastrointestinal condition).
C. The behaviour does not occur exclusively in the course of Anorexia Nervosa, Bulimia Nervosa, BED, or Avoidant/Restrictive Food Intake disorder.
D. If occurring in the presence of another mental disorder (e.g. intellectual developmental disorder), it is severe enough to warrant independent clinical attention.

Geophagia

- In Africa, kaolin, sometimes known as *kalaba* (in Gabon and Cameroon), *calaba*, and *calabachop* (in Equatorial Guinea), is eaten for pleasure or to suppress hunger.
- Kaolin for human consumption is sold at most markets in Cameroon and is often flavoured with spices such as black pepper and cardamom. Consumption is greatest among women, especially during pregnancy.
- Another example of geophagia was reported in Free State Province in South Africa, where the practice was geochemically investigated.
- In Haiti, poor people are known to eat biscuits made from soil, salt, and vegetable shortening. These biscuits hold minimal nutritional value, but manage to keep the poor alive. However, long-term consumption of the biscuits is reported to cause stomach pains and malnutrition, and is not recommended by doctors.
- Bentonite clay is available worldwide as a digestive aid; kaolin is also widely used as a digestive aid and as the base for some medicines. Attapulgite, another type of clay, is an active ingredient in many anti-diarrheal medicines.

Avoidant/Restrictive Food Intake Disorder (ARFID)

According to the DSM-5 criteria, to be diagnosed as having ARFID a person must display:

A. An Eating or Feeding disturbance as manifested by **persistent failure to meet appropriate nutritional and/or energy needs** associated with one (or more) of the following:
   1. Significant loss of weight (or failure to achieve expected weight gain or faltering growth in children).
   2. Significant nutritional deficiency
   3. Dependence on enteral feeding or oral nutritional supplements
   4. Marked interference with psychosocial functioning

B. The behavior is not better explained by lack of available food or by an associated culturally sanctioned practice.

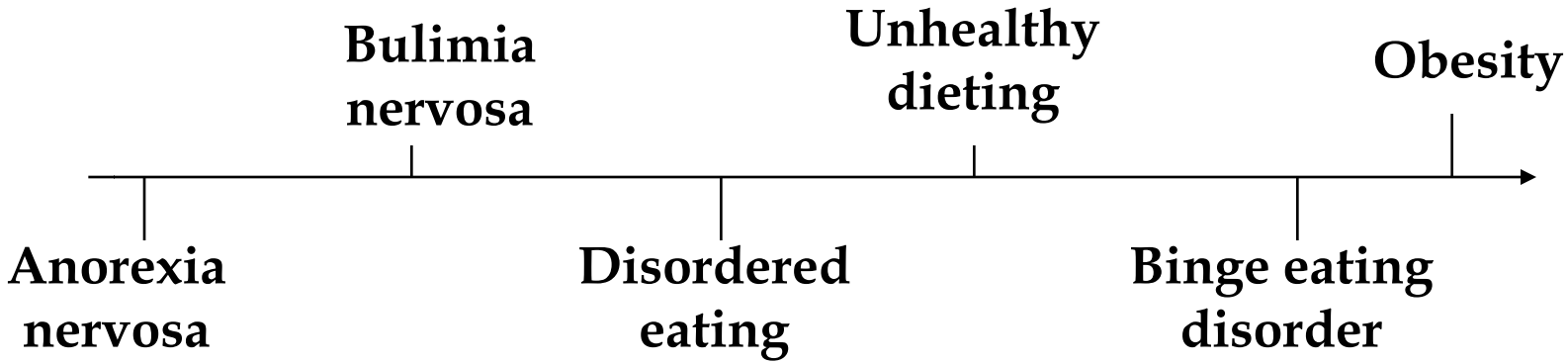
C. The behavior does not occur exclusively during the course of anorexia nervosa or bulimia nervosa, and there is no evidence of a disturbance in the way one's body weight or shape is experienced.

D. The eating disturbance is not attributed to a medical condition, or better explained by another mental health disorder. When it does occur in the presence of another condition/disorder, the behavior exceeds what is usually associated, and warrants additional clinical attention.

ARFID

- 52 y. old lady,
- Complaining of reoccuring stomach ache,
- Believes that she is suffering from Histamin allergy (no evidence)
- Eats only boilded rice, boiled millet, apple juice, toast of bread, oatmilk, boiled fish.
- Frequently visits therapist who is working in complementer medicine
- BMI: 13.8

Spectrum of Weight –Related Disorders



Eating Disorders: Epidemiology

- Age of onset: 14-18 years
- Sex ratio: Female to male ratio 10:1 (12:1)
  - Some authors belive the difference will disappear until 2050, as the idea of gracility is spreading among males
- Incidence:
  - AN: 6-24/100 000 person/year
  - BN: 10-26/100 000 person/year
- Prevalence (lifetime):
  - Anorexia nervosa: 0.9-4 %
  - Bulimia nervosa: 1.1-4.2 %
  - BED: 3.5% females; 2% males
- Family pattern: More common in sisters and mothers of those with disorder
- Complications: Mortality rates between 5 and 15% !!

- Eating disorder is third most common chronic illness among adolescent girls (after obesity and asthma)*.

*Herpertz-Dahlmann B: Adolescent eating disorders: Definitions, symptomatology, epidemiology, and comorbidity. Child Adolesc Psychiatr Clin N Am 18:31–47, 2008

Eating Disorders: Etiology

- Bio-psycho-social disorder
- Vulnerabilities in three spheres:
  - Biological: hereditary
  - Psychological (Individual/Family)
  - Socio- environmental

Genetic:

- The risk of AN among mothers and sisters of probands is estimated at 4% or about eight times the rate among the general population (Strober et al, 2000).
- Twin studies confirm a genetic link. Studies of identical or monozygotic twins show concordance of up to 90% for AN and 83% for BN (Kaye et al, 2000).

Differential Diagnoses

Medical Conditions

- GI - Inflammatory bowel disease, malabsorption, irritable bowel syndrome
- Endocrine
  - DM, Addison's, thyroid disease
- Malignancies
- CNS lesions
  - tumors, intracranial infections, increased ICP,
- Miscellaneous - early pregnancy, sarcoidosis, cystic fibrosis
- Chronic infections (TB, HIV)

Psychiatric Disorders

- Mood disorders, Emetophobia, OCD, Body dysmorphic disorder, Substance use disorders, Psychosis

Complications

- Cardiac impairment
  - Bradycardia, Hyptonia, Heart rhythm disturbances, Mitral Valve Prolapse, QT prolongation, Congestive heart failure, Sudden cardiac death
- Osteoporosis
- Gastrointestinal
  - Some specific to purging, Slowed motility, Constipation, Nausea/bloating, Oesophagitis, Gastric rupture, Pancreatitis
- Bradypnoe
- Anaemia, Leukopenia, Thrombocytopenia
- Oedema
- Amenorrhoea, Infertility
- Endocrine/Metabolic
  - Dehydratation, Hypoglykaemia, Hypokalemia, Hypomagnesemia, Hypocalcaemia, Hypophosphataemia, Hyperamylasemia, Elevated liver enzymes
- Neurological – cognitive
  - EEG-abnormality, Polyneropathia, Myopathia, Decreased brain volume
- Dry skin, Lanugo, Fragmented nails, Hyperkarotinaemia,
- Dental

Anorexia nervosa

According to the DSM-5 criteria, to be diagnosed as having Anorexia Nervosa a person must display:

A. Persistent restriction of energy intake leading to significantly low body weight (in context of what is minimally expected for age, sex, developmental trajectory, and physical health) .
B. Either an intense fear of gaining weight or of becoming fat, or persistent behaviour that interferes with weight gain (even though significantly low weight).
C. Disturbance in the way one's body weight or shape is experienced, undue influence of body shape and weight on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.

Subtypes:
Restricting type
Binge-eating/purging type

DSM-IV „D" criteria (amenorrhea) is not present in DSM-5

Anorexia nervosa

- Although quite descriptive, the word anorexia is a misnomer, as the term literally means “lack of appetite,” which is, in fact, rare.
- There are two main sub-types of anorexia:
- **Restricting type —** this is the most commonly known type of anorexia nervosa, whereby a person severely restricts their food intake. Restriction may take many forms (e.g. maintaining very low calorie count, restricting types of food eaten, eating only one meal a day) and may follow obsessive and rigid rules (e.g. only eating food of one colour).
- **Binge-eating or purging type —** less recognised, this type of anorexia nervosa forms when a person restricts their intake as above, but also has regularly engaged in binge-eating or purging behaviour (e.g. self-induced vomiting, over-exercise, misuse of laxatives, diuretics or enemas).

Signs of anorexia nervosa

Psychological signs of AN/1

- Preoccupation with body shape, weight and/or appearance
- Intense fear of gaining weight
- Preoccupation with food or food related activities
- Negative or distorted body image, perceiving self to be fat when at a healthy weight or underweight
- Low self-esteem (e.g. guilt, self-criticism, worthlessness)
- Rigid thinking (‘black and white’, ‘good and bad’)
- Feeling out of control
- Mood swings or depression,
- Anxiety
- Heightened anxiety around meal times
- Heightened sensitivity to comments or criticism about body shape, weight, appearance, eating or exercise habits

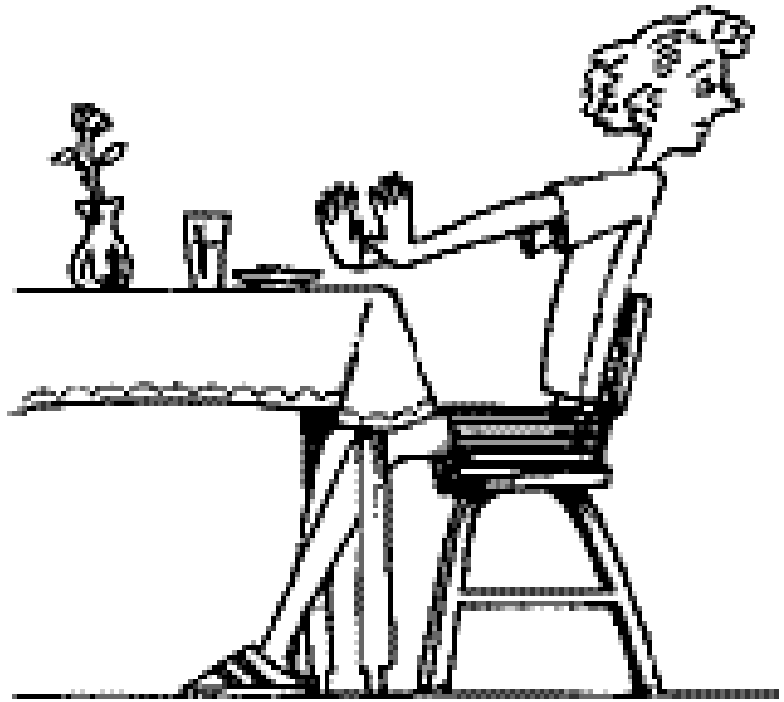
Psychological (and behavioural) signs of AN/2

- Suicidal or self-harm thoughts or behaviours
- Constant or repetitive dieting, restrictive or rigid eating patterns
- Excessive or compulsive exercise
- Changes in clothing style
- Impaired school or work performance
- Obsessive rituals around food
- Changes in food preferences
- Frequent avoidance of eating meals, making excuses not to eat
- Social withdrawal or avoidance of social situations involving food
- Repetitive or obsessive body-checking behaviours
- Deceptive or secretive behaviour around food

Physical signs and effects of AN

- weight loss or inability to maintain normal weight
- headaches, fainting, dizziness, light headedness, cognitive blunting
- mood swings, anxiety, depression, fatigue
- dry skin, brittle nails, thin hair, bruises easily, yellow complexion, growth of thin white hair all over body (called lanugo),
- intolerance to cold, hypothermia, poor circulation, acrocyanosis, oedema
- hypotension, bradycardia, irregular heart beat, cardiac arrest, heart failure, systolic murmur
- low iron levels (anaemia)
- constipation, diarrhoea, bloating, abdominal pain
- amenorrhoea or irregular periods, loss of libido, infertility, breast atrophy
- dehydration, kidney failure
- loss of bone calcium (osteopenia), osteoporosis,
- muscle loss, weakness, fatigue, cahexia, enamel loss (due to purging)
- salivary gland enlargement (due to purging)

BMI (BMI = weight / height^2)



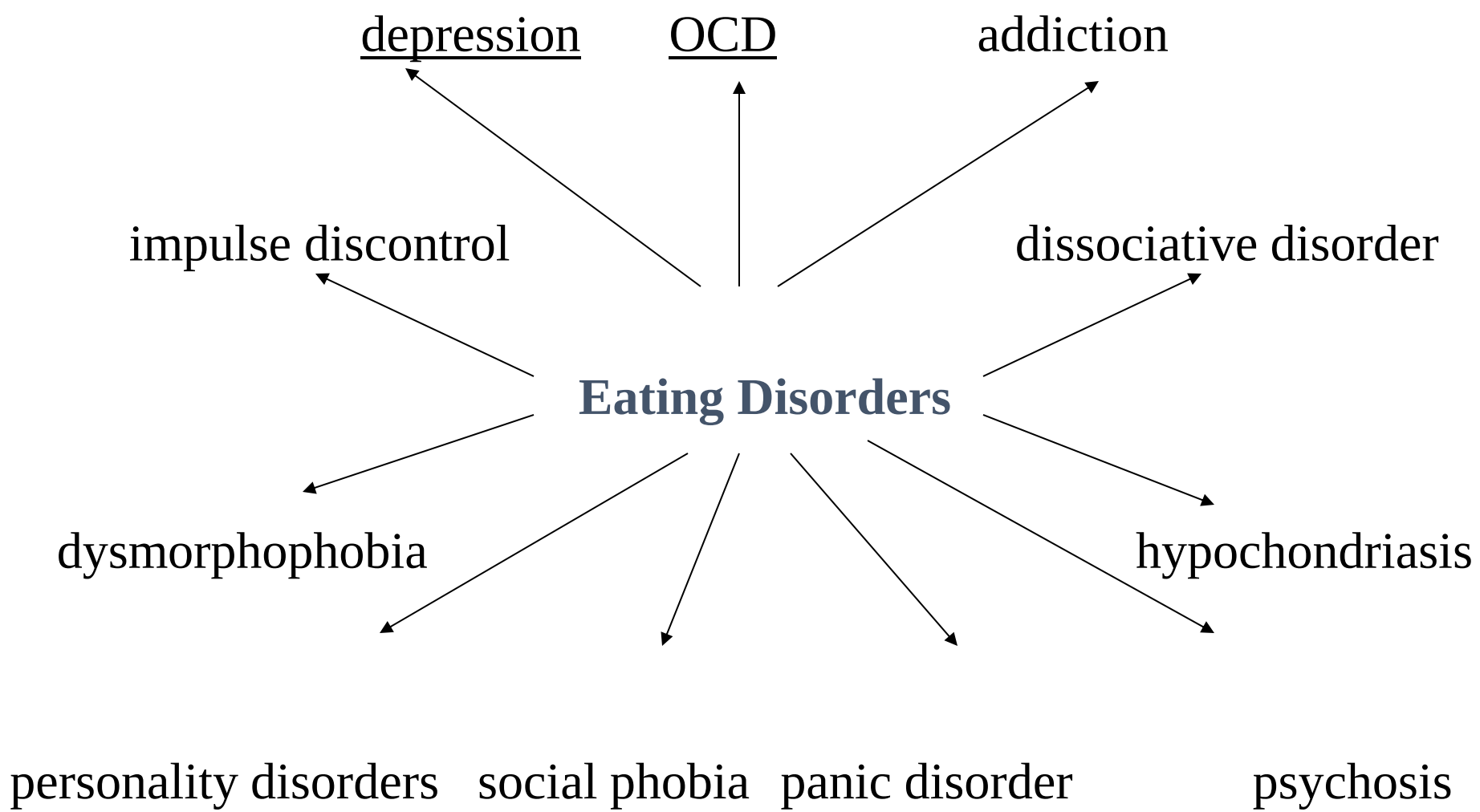
<u>According to WHO:</u>

- Mild: BMI≥17 kg/m2
- Moderate: BMI 16-16,99 kg/m2
- Severe: BMI 15-15,99 kg/m2
- Extreme: BMI≤15 kg/m2

- BMI below **13.5** can lead to organ failure
- BMI below **12** can be life threatening

- Note however that BMI alone is not enough to make a diagnosis of anorexia and is solely a possible indicator.

Mental disorders connected with Eating disorder



Personality traits/attitude

- Complusion for comformity
- Perfectionism
- Achivement orientation/goal centered
- Over-control
- OC-PD traits
- Oppostional
- Avoidant (avoiding emotions/sexuality)
- Alexithymia.
- Lack of insight

Course of AN

- Chronic disorder: last for years-decades, waxing-waning
- Typical transition: restrictive AN – BulimAnorexia – BN with normal bodyweight.
- Course of AN regarding body weight:
  - Overcompensation, overweight
  - Regaining normal weight
  - Low body weight remains: bad prognosis
- Reoccuring ineffective treatments relate to bad prognosis.
- The longer the illness lasts the worse the outcome is.
- If one only gets symptomatic treatment and the underlying psychological causes have not been addressed this will cause relapse

Prognosis of AN

- Mortality – 10 years – 6.6%
  - Range 0-18%
  - Cause of death: cardiac arrest, suicidium, undernourishment, infections
- Morbidity (*Steinhausen HC. The outcome of anorexia nervosa in the 20th century. Am J Psychiatry 2002; 159: 1284–93.)
  - 46% full recovery
  - A third improved with only partial or residual features of anorexia nervosa
  - 20% remained chronically ill over the long term
  - Substance use disorders, OCD, and obsessive-compulsive personality disorder were very common diagnoses at outcome
- Predictors of poor outcomes
  - Early age at onset, Late diagnosis, longer duration, unsuccessful treatments in the history,
  - Lower minimal weight, low weight at the beginning, null calory intake in the history,
  - Severe tension in the family-system, Low-self-esteem, Bulimic symptoms
- 25 – 55% of anorexic patients may become bulimic
- Good outcome: short restrictive AN
- Frequently seen residual symptoms: meticulosity related food intake, bizarr eating habits

Treatment of AN

- Initial aims: help to regain body weight – The lower the weight is the more emphasis must be put on this (Psychotherapy could start parallel but the effect of it will be apparent later meanwhile we have to protect health and save life)
- Inpatient admission depends on:
  - The severity of weightloss
  - Family cooperativity (Under certain weigth it is not relevant)
  - Motivation of the patient (Under certain weigth it is not relevant)

- Basic principle: (1) provide a consistent control but avoid to be overcontrolling, (2) involve the patient and the family as much as possible.

Somatic therapy, Pharmacotherapy - AN

- **Nutritive rehabilitation:** help the patient with regaining weight in case of extreme weight loss- feeding parenteral way or via nasogastric tube (This must be as short as possible)

Pharmacotherapy:

- No specific effect
- In case of comorbidity: appropriate treatment of the comorbid mental disorder (e.g.Depression: antidepressive medication/Pychosis: antipsychotic
- In case of chronic AN: oestrogen substitution, pancreatic enzym substitution, vitamins

- *There is not any benefit to give medication that increase appetite- it will only increase resistance*

Psychotherapy

First and foremost ***Psychoeducation***: patient and family!

Individual psychotherapy:

1. *Psychodynamicly oriented psychotherapy*: in case of foundation/background that could be interpreted psychodynamicly (traumas and adversities in history, sexual abuse, dysharmonic personal development, dissociation, false self etc.)
2. *Cognitive and behavioural Therapy (CBT)*: addressing the behavioural symptoms, correcting distorted judgemental process, restructuring thinking
   - Behavioural therapy:
     - Promoting weightgain
     - Correcting eating habits
     - Correcting body image distorsion
   - Cognitive therapy:
     - Identifying thoughts and feelings, restructuring thoughts such as Negative automatic thoughts, Basic assumptions, Schemas
     - Correcting body image distorsion
3. *Other individual therapies:* depends on therapist and patient

Group therapy:

- Acquire effective coping startegies/behaviour
- It is important that the therapist should be experienced in eating disorder, otherwise members could harm each other without being aware of it.
- Body oriented therapies (movement therapies): facilitate emotion expression and solve body image disorder

Family therapy:

- AN often is a manifestation of a systemic problem. The patient is the index person, „the weakest link of a chain”
- Family therapy could help to correct the family dysfunctions, promoting separation-individualization
- Under 18 it is often more effective than individual therapy

Integrative therapeutic approach

- Due to complexicity that is so typical of eating disorder the combination of the different therapeutic approaches are often needed
- Typical combinations:
  - Pharmacotherapy
  - Individula psychodynamic psychotherapy
  - Family therapy
  - CBT
  - Group therapy
- These methods mutually enhance the effect of each others, however good planing is necessary

Bulimia nervosa

According to the DSM-5 criteria, to be diagnosed as having Bulimia Nervosa a person must display:

A. Recurrent episodes of binge eating. An episode of binge eating is characterised by both of the following:
   1. Eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
   2. A sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating).

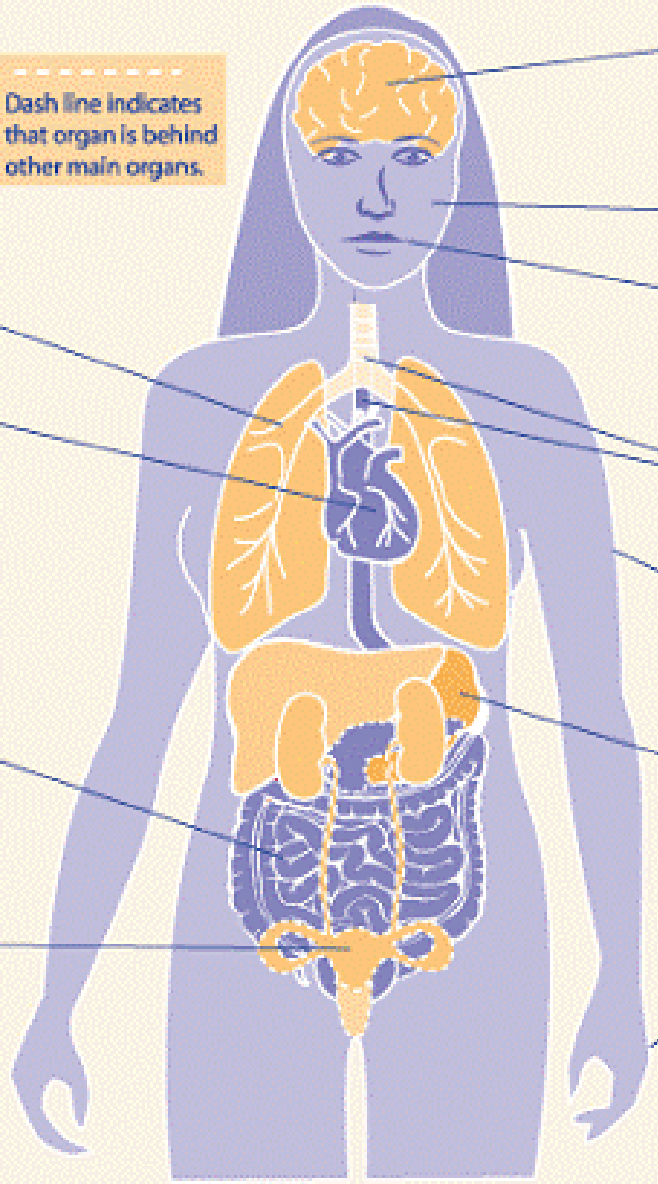
B. Recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting, misuse of laxatives, diuretics, or other medications, fasting, or excessive exercise.

C. The binge eating and inappropriate compensatory behaviours both occur, on average, at least once a week for three months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

How bulimia affects your body



Brain
depression, fear of gaining weight, anxiety, dizziness, shame, low self-esteem

Cheeks
swelling, soreness

Mouth
cavities, tooth enamel erosion, gum disease, teeth sensitive to hot and cold foods

Throat & Esophagus
sore, irritated, can tear and rupture, blood in vomit

Muscles
fatigue

Stomach
ulcers, pain, can rupture, delayed emptying

Skin
abrasion of knuckles, dry skin

Blood
anemia

Heart
irregular heart beat, heart muscle weakened, heart failure, low pulse and blood pressure

Body Fluids
dehydration, low potassium, magnesium, and sodium

Intestines
constipation, irregular bowel movements (BM), bloating, diarrhea, abdominal cramping

Hormones
Irregular or absent period

History: Bulimia Nervosa

- Boüs (bullock) – limos (appetite)
- Bulimia Nervosa (BN), was first clinically described in 1979
- At the beginning it was treated as part of AN
- 1980: appears in the DSM-III

Prognosis - BN

- In two third of the treated: significant symptom reduction.
- Total remission is rarely seen.
- More frequently seen outcome: residual symptoms are presisiting for years (worries related to body weight, meticulosity related to food intake, bizarr eating habits).
- One third of the untreated: spontaneous symptom reduction.

Treatment of BN

- Milder form of the disorder:
  - Psychoaducation related to food intake
  - Self-help books
  - Self-help groups: be careful, it could end up with creating unhealthy subgroup
- In case of more severe form:
  - psychotherapy,
  - pharmacotherapy
  - Somatic therapy if needed
  - Admission to inpatient unit

Self-help guide

- ***1st step: Self-observation***
  - (Recording the eating to know what is happening to you)
- ***2nd step: Forming an eating plan***
  - (Decide which eating pattern suits you and stick to it)
- ***3rd step: Learn how to intervene***

  (Learn what kind of circumstances are triggering eating and how can you prevent this)
- ***4th step: Problemsoving***
  - (Learn how you should verbalise your problems relate to your eating disorder and how you should address those)
- ***5th step: Stop dieting***
  - (Increase the diversity of the consumed food)
- ***6th step: Change yor thinking***
  - (Identify some of your believes that underpin your eating disorder and try and modify them)

Inpatient admission is necessary if

- Vomiting several times a day
- Risk of health damage (Low Potassium level, cardiac arrhythmia)
- Risk of suicide (e.g. multi-impulsive BN)
- Severe disorder of impulse discontrol (alcohol- drug abuse)
- Lost control over food intake
- Stubborn symptoms that cannot be alleviated with outpatienn therapy

- Drop out in case of BN is about 10%

Somatic therapy, Pharmacotherapy

- ***First tasks***: correct related somatic problems (undernourishment, low Potassium)
- *Pharmacotherapy:*
- Antidepressive therapy: effectively reducing the impulsive binge eating
- Mainly SSRI. The dose is usually higher than it is seen in depression: e.g.fluoxetin 60mg/die)

Limitation:

- Abstinence is rarely achieved
- Withdrawal of pharmacotherapy may provoke relapse
- There is not any significant difference between patients on medication and without medication

Further recommandation: combine pharmacotherapy with psychotherapy

- Several studies show that combination is more beneficial than one single approach.
- Other psychopharmacotherapy: only to address symptoms

Binge Eating Disorder

According to the DSM-5 criteria, to be diagnosed as having Binge Eating Disorder a person must display:

A. Recurrent episodes of binge eating. An episode of binge eating is characterised by both of the following:
   1. Eating, in a discrete period of time (e.g. within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
   2. A sense of lack of control over eating during the episode (e.g. a feeling that one cannot stop eating or control what or how much one is eating).

B. The binge eating episodes are associated with three or more of the following:
   1. eating much more rapidly than normal
   2. eating until feeling uncomfortably full
   3. eating large amounts of food when not feeling physically hungry
   4. eating alone because of feeling embarrassed by how much one is eating
   5. feeling disgusted with oneself, depressed or very guilty afterward

C. Marked distress regarding binge eating is present

D. Binge eating occurs, on average, at least once a week for three months

E. Binge eating not associated with the recurrent use of inappropriate compensatory behaviours as in Bulimia Nervosa and does not occur exclusively during the course of Bulimia Nervosa, or Anorexia Nervosa methods to compensate for overeating, such as self-induced vomiting.

- Note: Binge Eating Disorder is less common but much more severe than overeating. Binge Eating Disorder is associated with more subjective distress regarding the eating behaviour, and commonly other co-occurring psychological problems.

Other Specified Feeding or Eating Disorder (OSFED)

- According to the DSM-5 criteria, to be diagnosed as having OSFED a person must present with a feeding or eating behaviours that cause clinically significant distress and impairment in areas of functioning, but do not meet the full criteria for any of the other feeding and eating disorders.
- A diagnosis might then be allocated that specifies a **specific reason** why the presentation does not meet the specifics of another disorder (e.g. Bulimia Nervosa- low frequency). The following are further examples for OSFED:

- **Atypical Anorexia Nervosa**: All criteria are met, except despite significant weight loss, the individual's weight is within or above the normal range.
- **Binge Eating Disorder** (of low frequency and/or limited duration)**:** All of the criteria for BED are met, except at a lower frequency and/or for less than three months.
- **Bulimia Nervosa** (of low frequency and/or limited duration): All of the criteria for Bulimia Nervosa are met, except that the binge eating and inappropriate compensatory behaviour occurs at a lower frequency and/or for less than three months.
- **Purging Disorder:** Recurrent purging behaviour to influence weight or shape in the absence of binge eating
- **Night Eating Syndrome:** Recurrent episodes of night eating. Eating after awakening from sleep, or by excessive food consumption after the evening meal. The behavior is not better explained by environmental influences or social norms. The behavior causes significant distress/impairment. The behavior is not better explained by another mental health disorder (e.g. BED).

Unspecified Feeding or Eating Disorder (UFED)

- According to the DSM-5 criteria this category applies to where behaviours cause clinically significant distress/impairment of functioning, but do not meet the full criteria of any of the Feeding or Eating Disorder criteria.
- This category may be used by clinicians where a clinician chooses not to specify why criteria are not met, including presentations where there may be insufficient information to make a more specific diagnosis (e.g. in emergency room settings).

Muscle dysmorhia

- Reverse AN
- Extremly muscular man are preoccupied with their body shape, following special diet, doing extreme amount of physical exercsice, never being satisfied with their appearence
- Muscle dysmorhia is part of Body dysmorhic disorder (BDD), that is in the chapter of “Obsessive-Compulsive and Related Disorders”

Thank you for your attention!