

# Eating disorders

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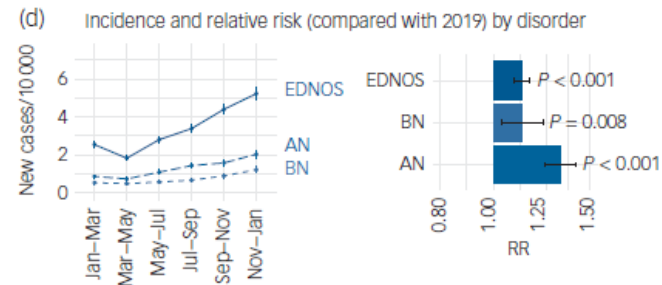
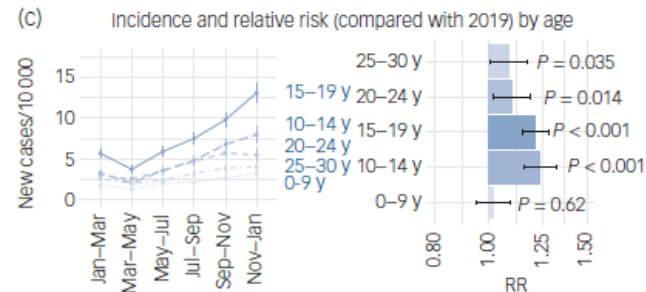
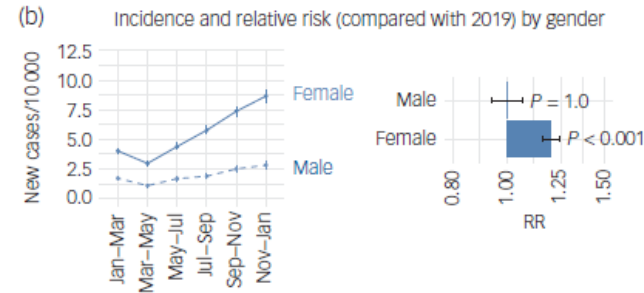
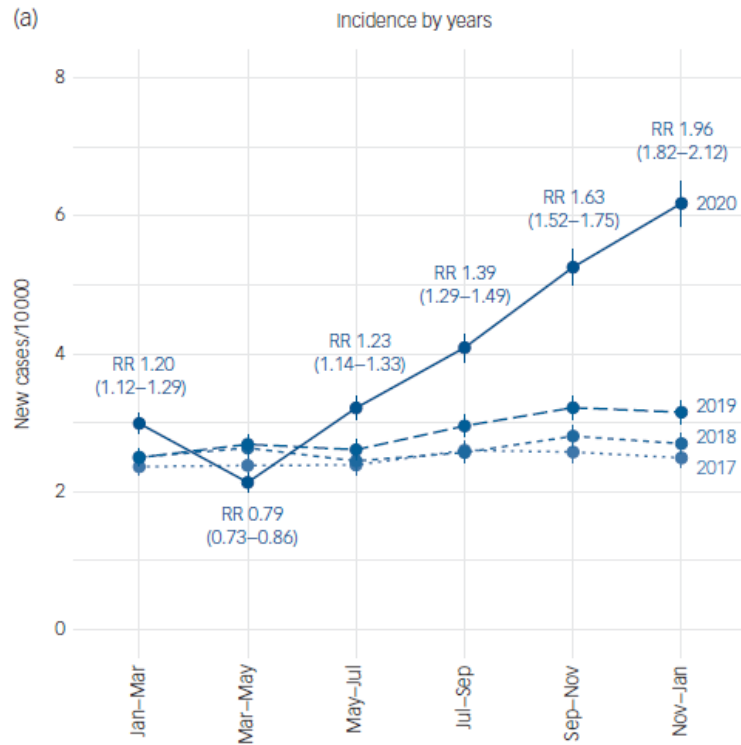
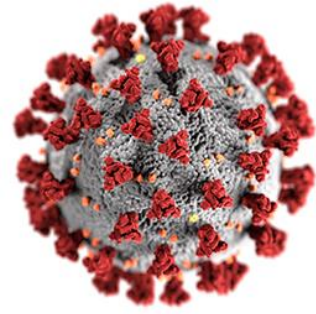






# Eating disorders

## Increase during pandemic



➤ Also in our clinic pronounced increase of severely ill patients

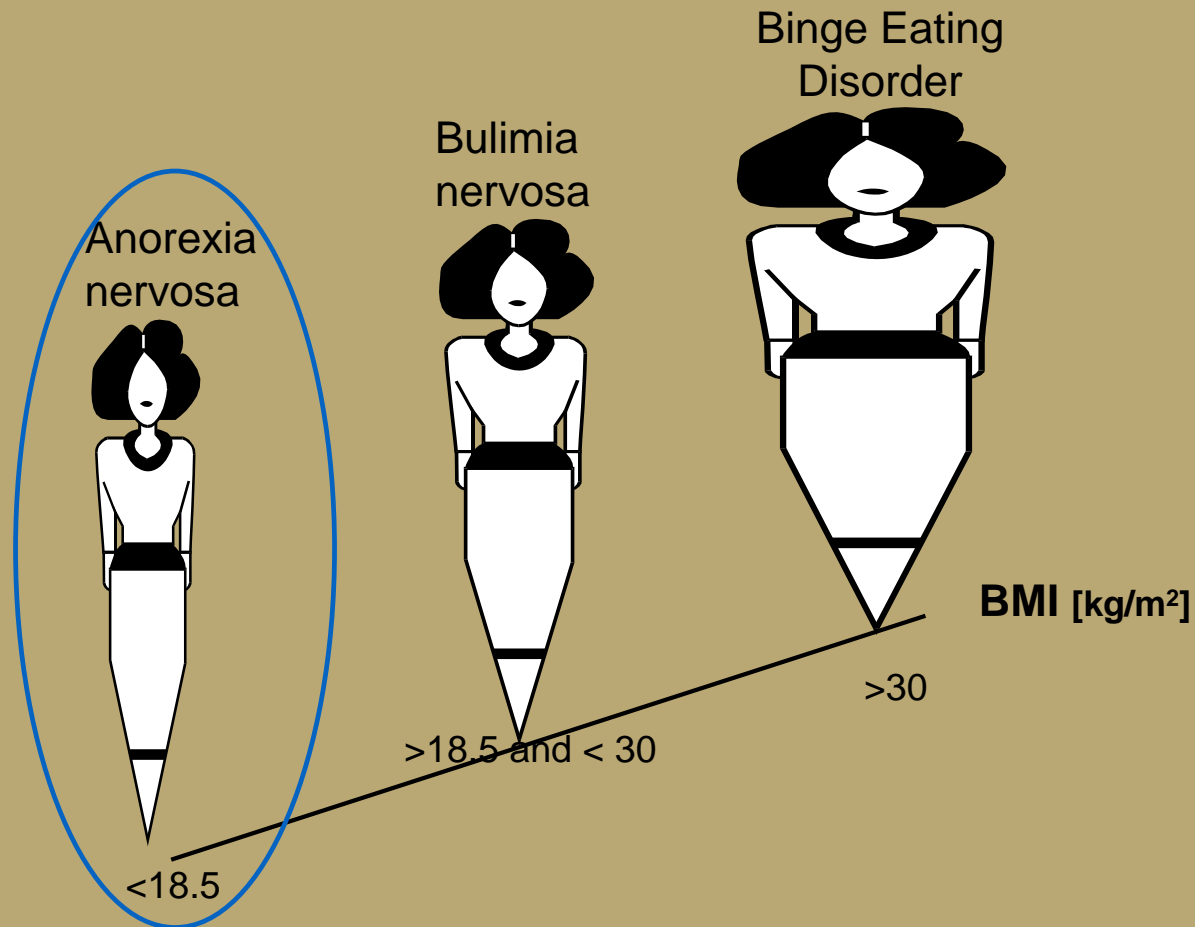






# Eating disorders

## Anorexia nervosa





# Anorexia nervosa

## Patient history

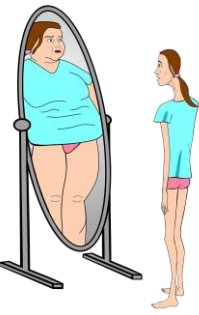


*21-year-old Ms. A. is admitted for inpatient treatment for anorexia nervosa with a BMI of 14.5 kg/m<sup>2</sup>. Starting with a diet 2 years ago, she had continuously reduced her eating habits. She is currently trying not to exceed an energy intake of 500 kcal per day and is also making sure she eats particularly healthy foods. She reports a pronounced fear of gaining weight and checks her appearance in the mirror up to 15 times a day. In connection with her fears, she would carry out a strict fitness program consisting of strength exercises and endurance training several times a day. The mental preoccupation with her weight and the strict fitness program filled a large part of her day, so that her social life and performance in her studies were restricted. She is ambivalent about the therapy.*



# Anorexia nervosa

## Definition

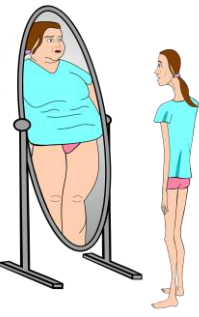


- weight loss 'intentionally' induced
- weight below BMI 17.5 or 15% below expected weight
- weight loss due to food restriction or calorie consumption/loss (active)
- body schema disorder
- endocrine disorders (secondary amenorrhea, loss of libido, elevated GH and cortisol)
- delayed puberty / development / growth



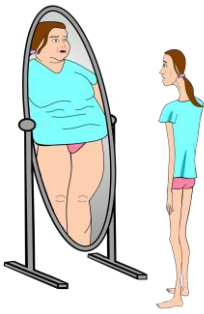
# Anorexia nervosa

## Body schema disorder

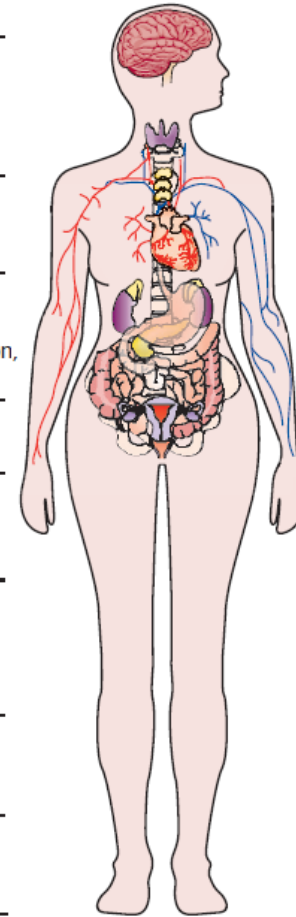


# Anorexia nervosa

## Somatic symptoms / complications



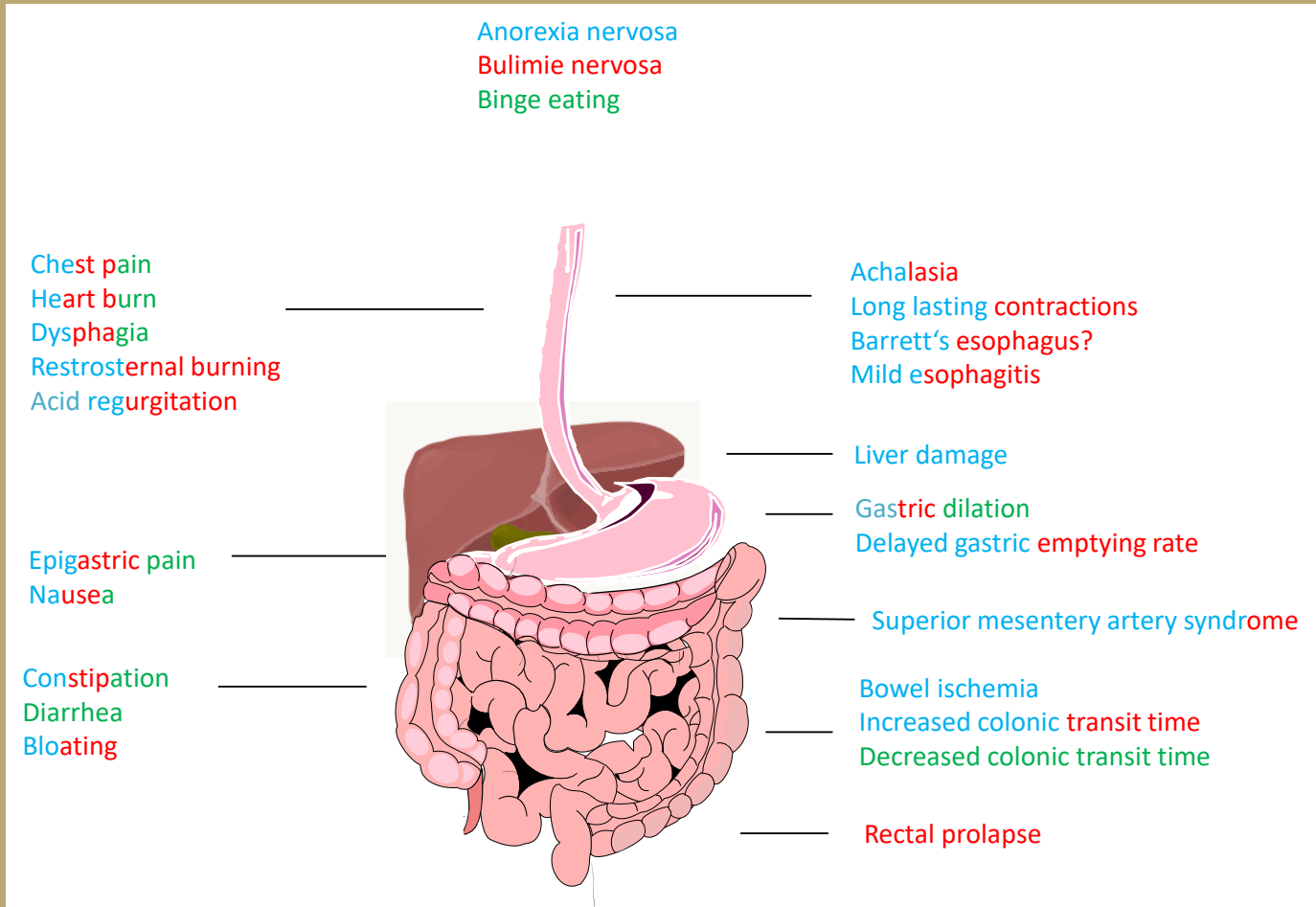
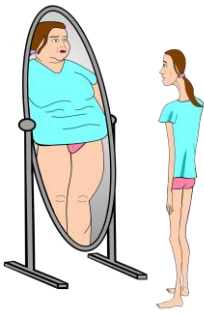
Organ systems or organ	Pathological findings	Leading systems
CNS	Morphological and functional cerebral changes; volume reduction in cerebral grey and white matter	Cognitive deficits
Dental system and parotis glands	Impaired dental status, dental caries, increased serum amylase	Dental caries, enlargement of the parotid glands
Endocrine system and reproductive function	Hypothalamus-pituitary-gonadal-axis, low T <sub>3</sub> syndrome, hypercortisol	Amenorrhoea in women, symptoms of hypothyroidism, depression, elevated stress levels
Cardiovascular system	Hypotension, bradycardia, arrhythmia	Syncope
Gastrointestinal tract	Impaired gastric emptying, gastric dilation, gastro-duodenal ulcers	Constipation, ileus, upper gastrointestinal bleeding
Haematological and immune system	Bone marrow hypoplasia, anaemia with reduced leucocytes and immunoglobulin	Anaemia, (bacterial) infections, compromised immune competence
Renal tract	Hypokalaemia, hypophosphataemia, hypernatraemia	Nephrolithiasis, oedema, syncope
Bone	Reduced bone density (osteopenia) or osteoporosis	Bone fractures and concomitant pain, spinal compression





# Anorexia nervosa

## Gastrointestinal symptoms particularly frequent



90% of patients report gastrointestinal complaints

### Most frequently:

- postprandial fullness (96%)
- abdominal distension (90%)
- constipation (83%)
- functional GI disorders (~50%)

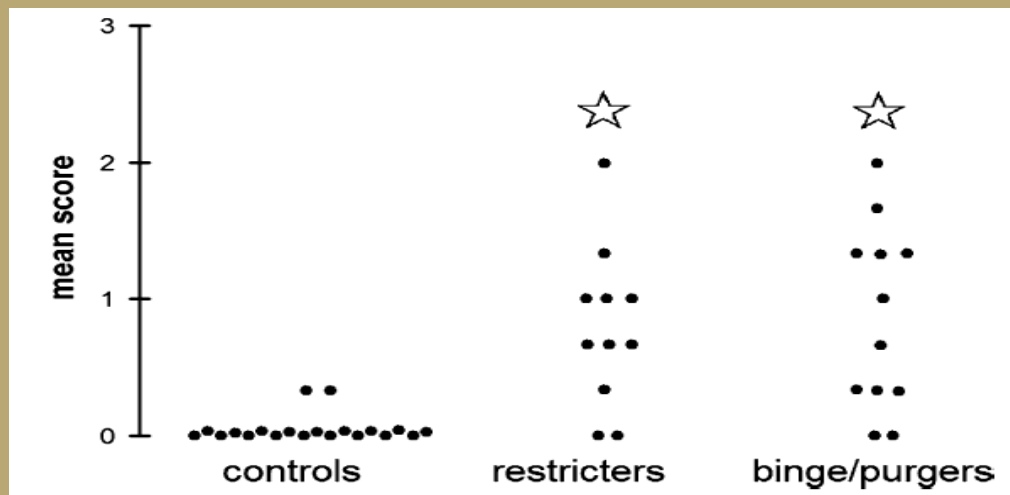


# Anorexia nervosa

## Esophageal symptoms

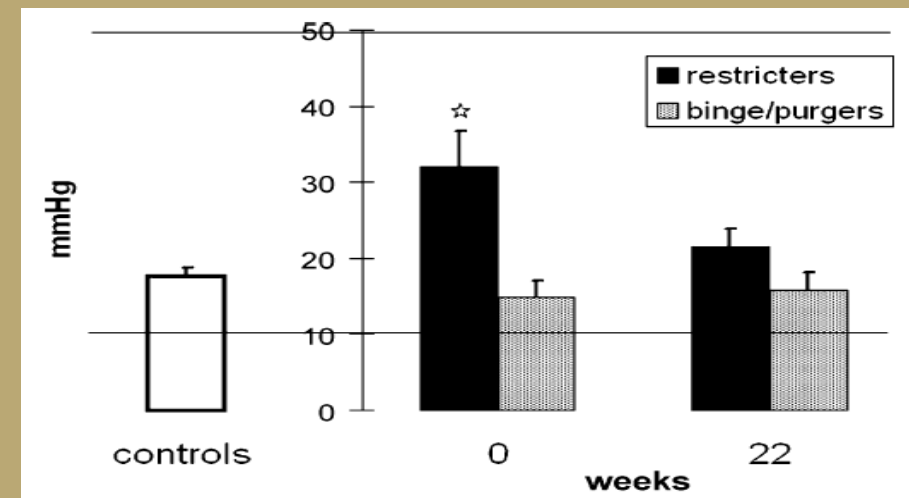
Esophageal symptoms

(dysphagia, heartburn, regurgitation)



basal tone of the

lower esophageal sphincter

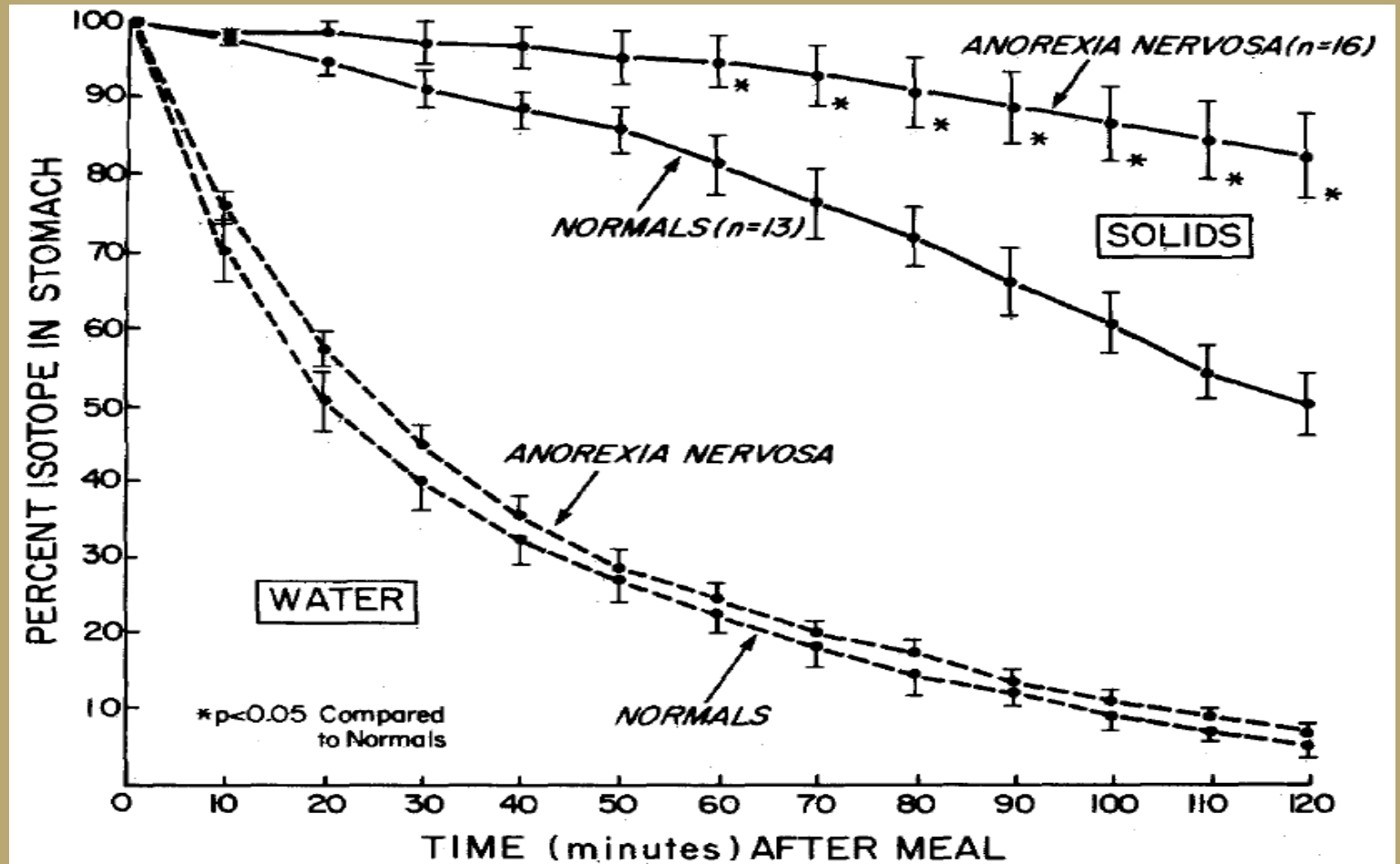
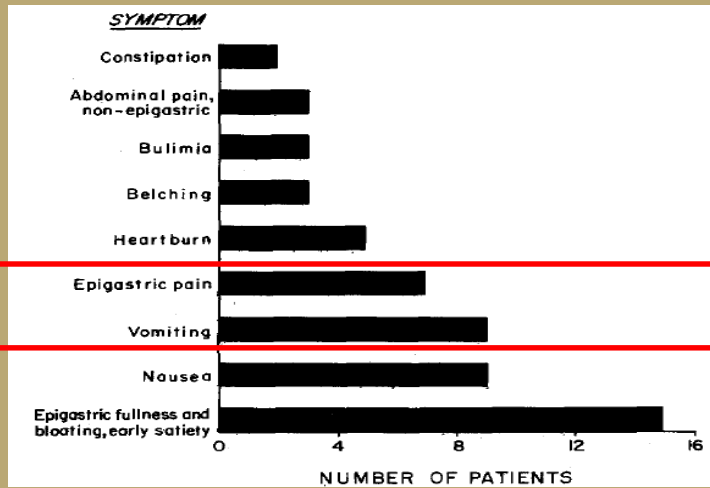


n=23 patients with AN, n=35 controls



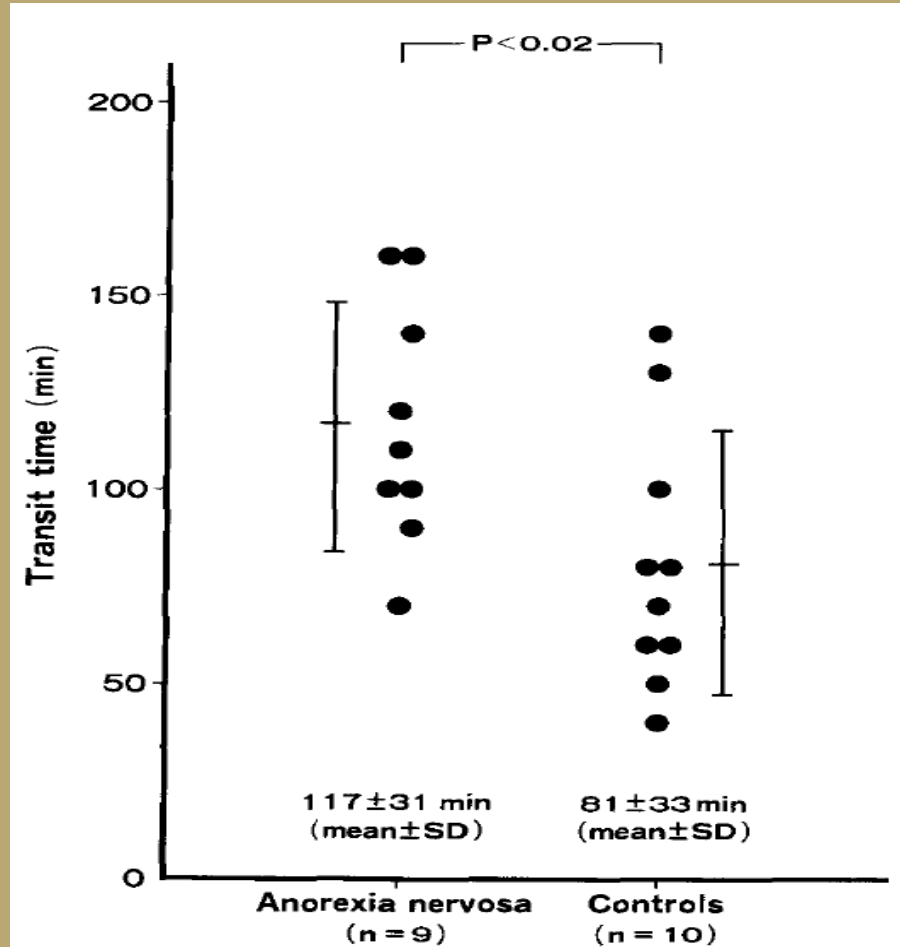
# Anorexia nervosa

## Delayed gastric emptying



# Anorexia nervosa

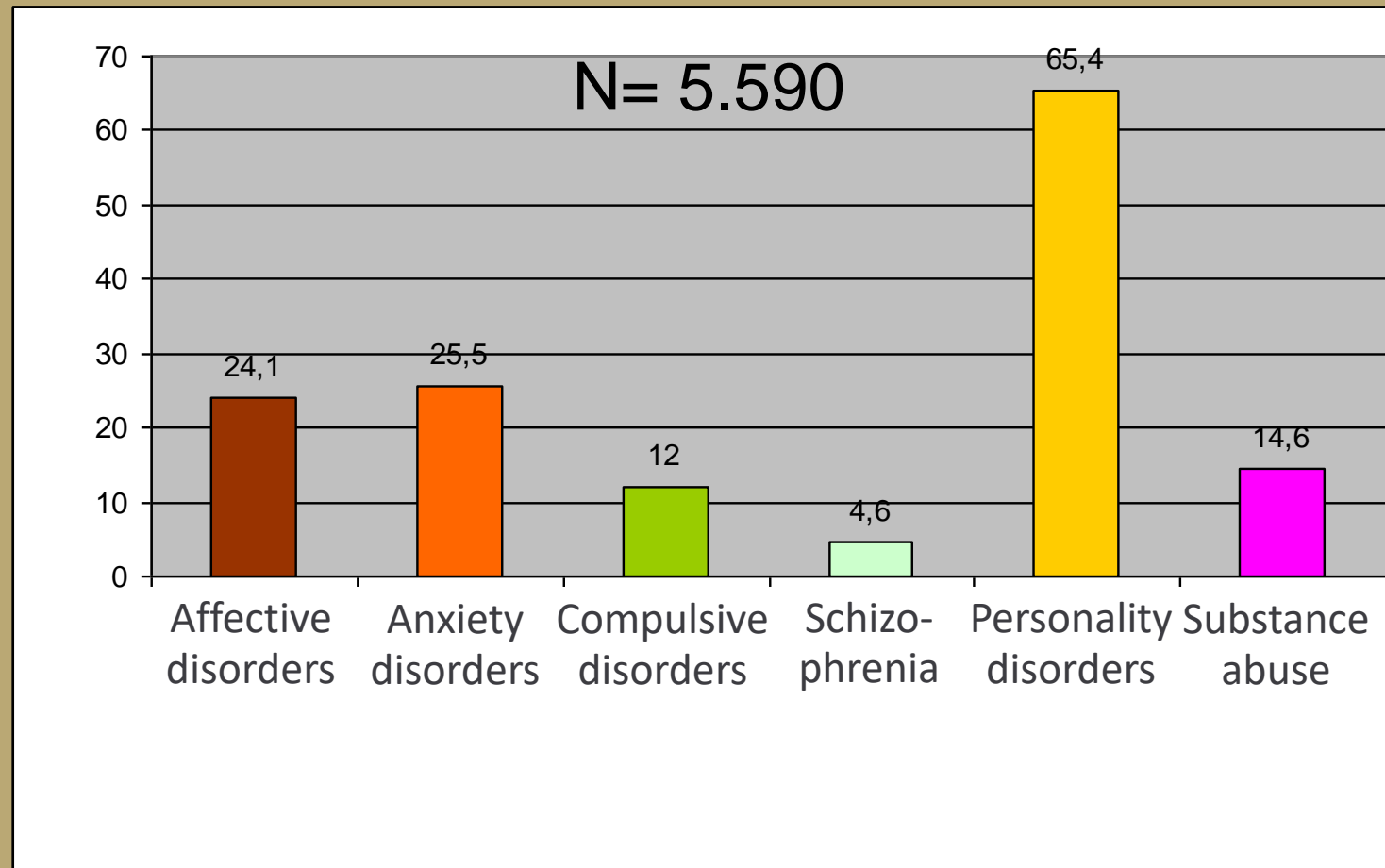
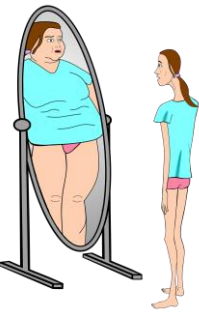
## Delay of small intestinal transit





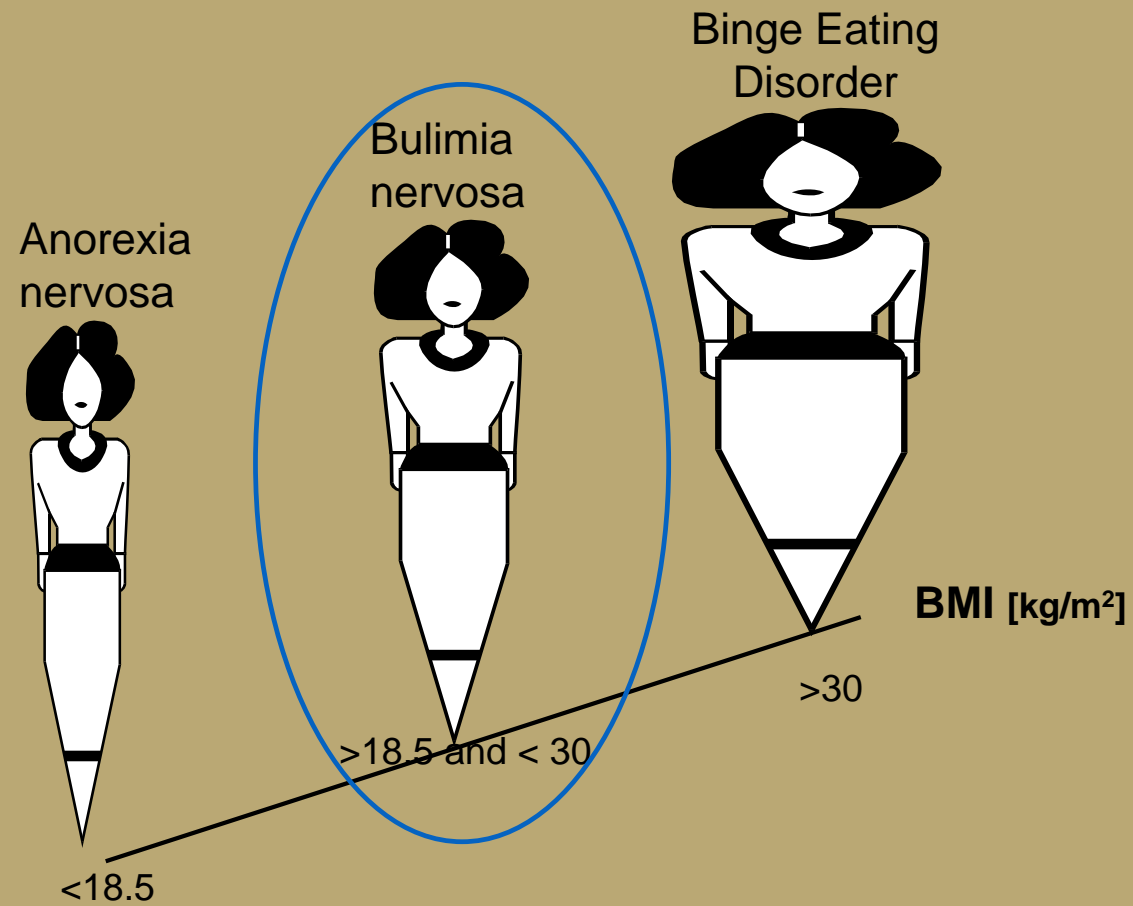
# Anorexia nervosa

## Psychiatric comorbidities



# Eating disorders

## Bulimia nervosa



# Bulimia nervosa

## Patient history



*25-year-old Ms. B. has been undergoing outpatient psychotherapy for over a year with a diagnosis of bulimia nervosa. Despite psychotherapy, her binge eating has worsened considerably. These now occur daily, preferably in the evening, and she eats large quantities of food that she has prepared in advance. She describes a loss of control and pronounced feelings of shame after the binge eating episode. The subsequent vomiting would lead to complete exhaustion. The increasing symptoms would result in significant restrictions in her social life; in particular, she would try to avoid social activities in connection with food intake (e.g. visits to restaurants with work colleagues) and would come up with numerous excuses in this regard.*



# Bulimia nervosa

## Definition

- constant preoccupation with food
- binge eating with consumption of large amounts of food in a short time
- loss of control
- compensatory behavior (purging)
- pathological fear of becoming fat
- often develops out of anorexia nervosa





# Bulimia nervosa

## Somatic symptoms / complications

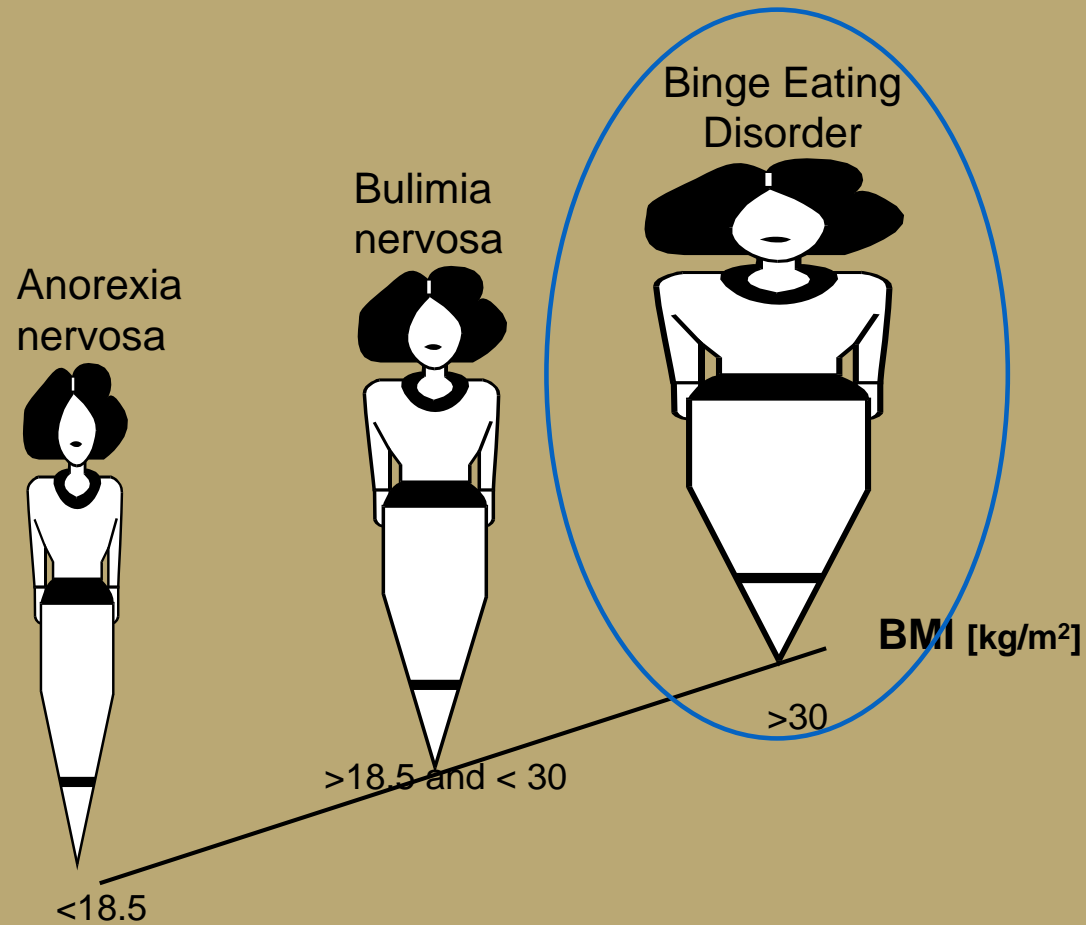


- Hypokalemia, hypochloremia
- Hypoglycemia
- Acidosis (laxatives) or alkalosis (vomiting)
- Hypovolemia
- Sialadenosis
- Dental damage
- Cardiac arrhythmia
- Endocrine disorders (only with 10% normal cycle)
- Cardiac insufficiency, reflux
- Reduced intestinal motility, constipation



# Eating disorders

## Binge Eating Disorder



# Binge Eating Disorder

## Patienten history



*33-year-old Mr. B. undergoes outpatient psychotherapy for a binge eating disorder. Mr. B., who lives alone, had noticed how he had eaten more and more in the past, especially in the evenings when he would come home from work. He had continuously increased the speed and increasingly consumed large amounts of food, even without feeling hungry, until he felt completely full. At times he experienced a complete loss of control and could not explain why he could not stop eating. Due to pronounced feelings of shame, he was very hesitant about further outpatient psychotherapy. He has had first-degree obesity for several years.*



# Binge Eating Disorder

## Definition



### ICD-10

- eating attacks with other mental disorders / psychogenic eating attacks

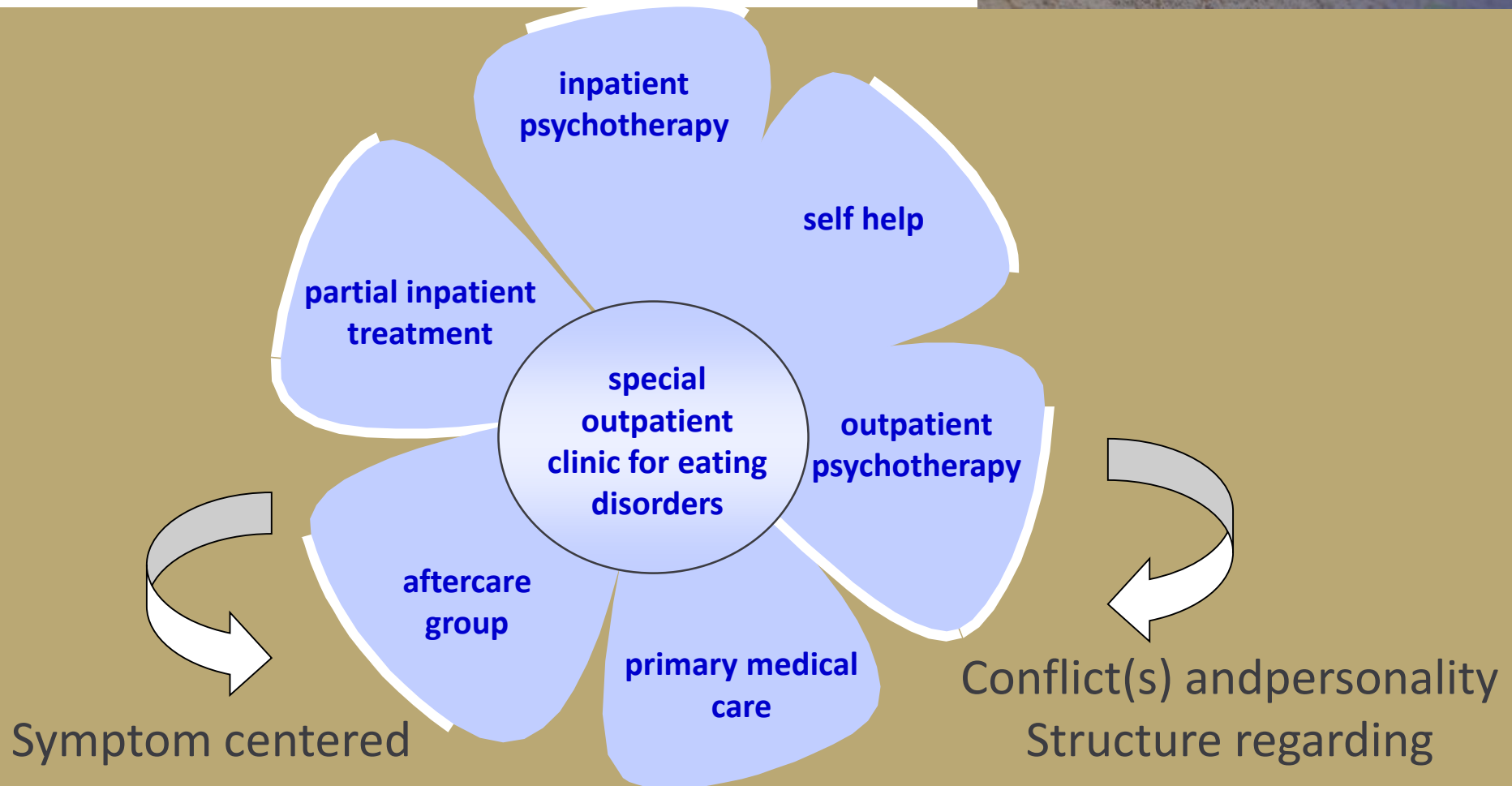
### DSM-5

- consumption of an unusually large amount of food in a certain period of time
- feeling of loss of control over eating behavior
- binge eating with: fast eating, eating until feeling full, lack of hunger, eating alone, feelings of disgust towards oneself, feelings of guilt afterwards
- no (regular) compensatory behavior e.g. vomiting





# Eating disorders Overview therapy



# Eating disorders

## Nutritional therapy



### Aims

- learning to eat a regular, balanced and sufficient diet
- addition of previously prohibited foods (AN, BN)
- reduction of cravings and binge eating
- for anorexia nervosa, weight gain of 500 - 1000 g per week (inpatient, weight contract)
- inpatient: eating support, teaching kitchen



# Eating disorders

## Psychotherapy

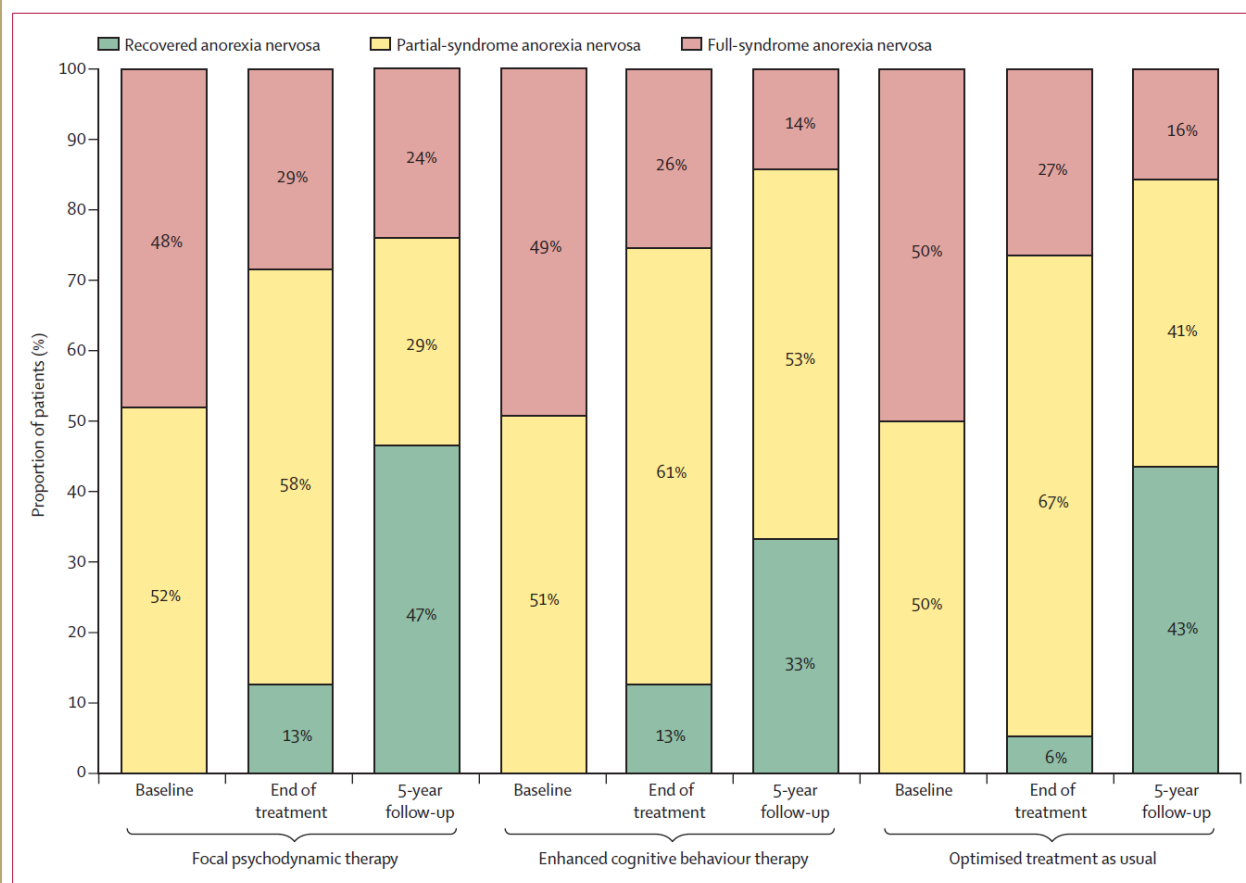


Figure 3: Global outcome at baseline, end of treatment, and 5-year follow-up, by treatment group



# Psychotherapy

## Frequent conflict-oriented topics



- dysfunctional handling of negative emotions such as anger, rage, shame, envy
- difficulties separating from the parental home / insecurity with their own identity
- high performance thinking and perfectionism
- life events (e.g. death of a parent) or traumatic experiences (abuse)
- dysfunctional family communication patterns
- anxiety in forming relationships / few relationships outside the family



# Eating disorders

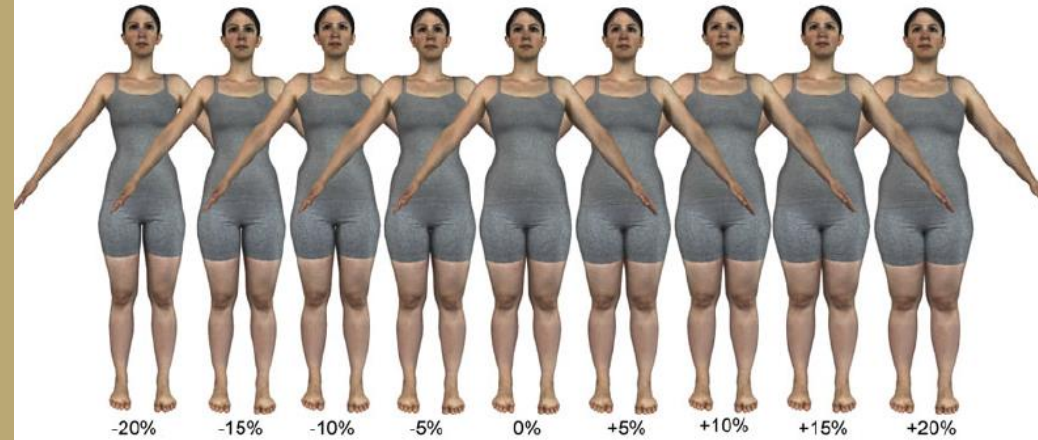
## Body centered therapy



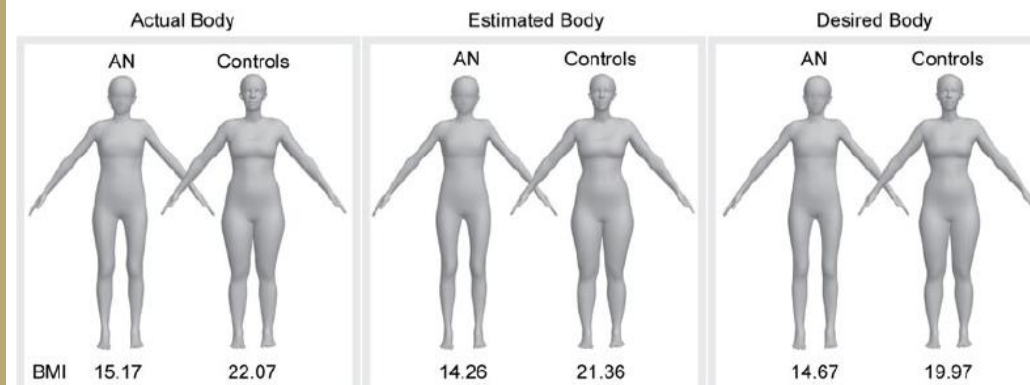
Body scan



(b) Weight manipulation



(c) Outcomes



- realistic assessment
- desire for a thinner body
- current further development using virtual reality



# Eating disorders

## Psychopharmacotherapy



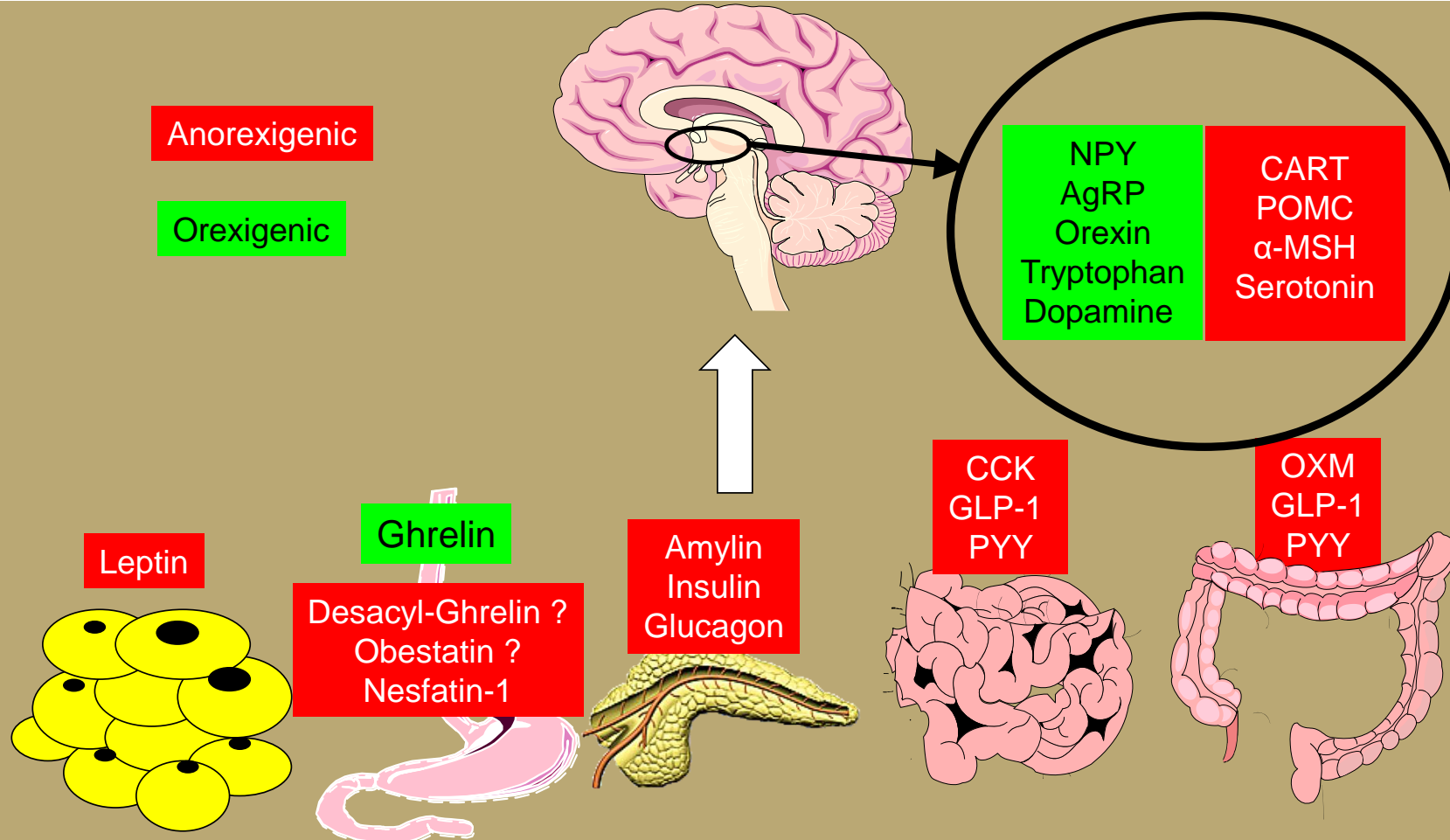
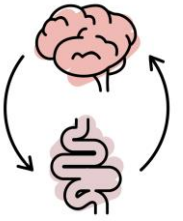
- psychological comorbidities can be an indication for pharmacotherapy
- pharmacotherapy only as a supplementary component
- for anorexia nervosa, possibly off-label olanzapine
- fluoxetine approved for bulimia nervosa
- no approved medication available for binge eating disorder





# Endocrine regulation of food intake

## Redundant



# Summary

- eating disorders are common
- increase currently associated with the pandemic
- often with somatic complications and psychological comorbidities
- multimodal therapy with psychotherapy and nutritional therapy as integral parts
- accompanying pharmacotherapy
- room for improvement, some promising options in the pipeline



Thank you for your attention!



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