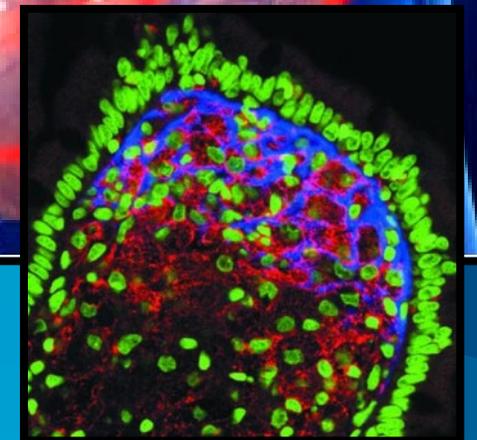
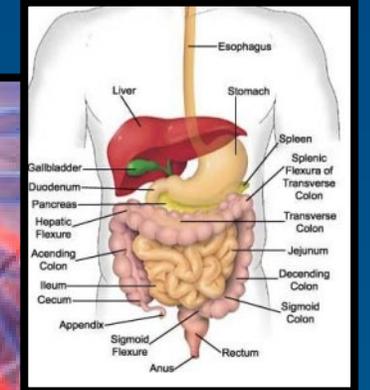


Diarrhoe und Arthralgien: Differentialdiagnose und Abklärung

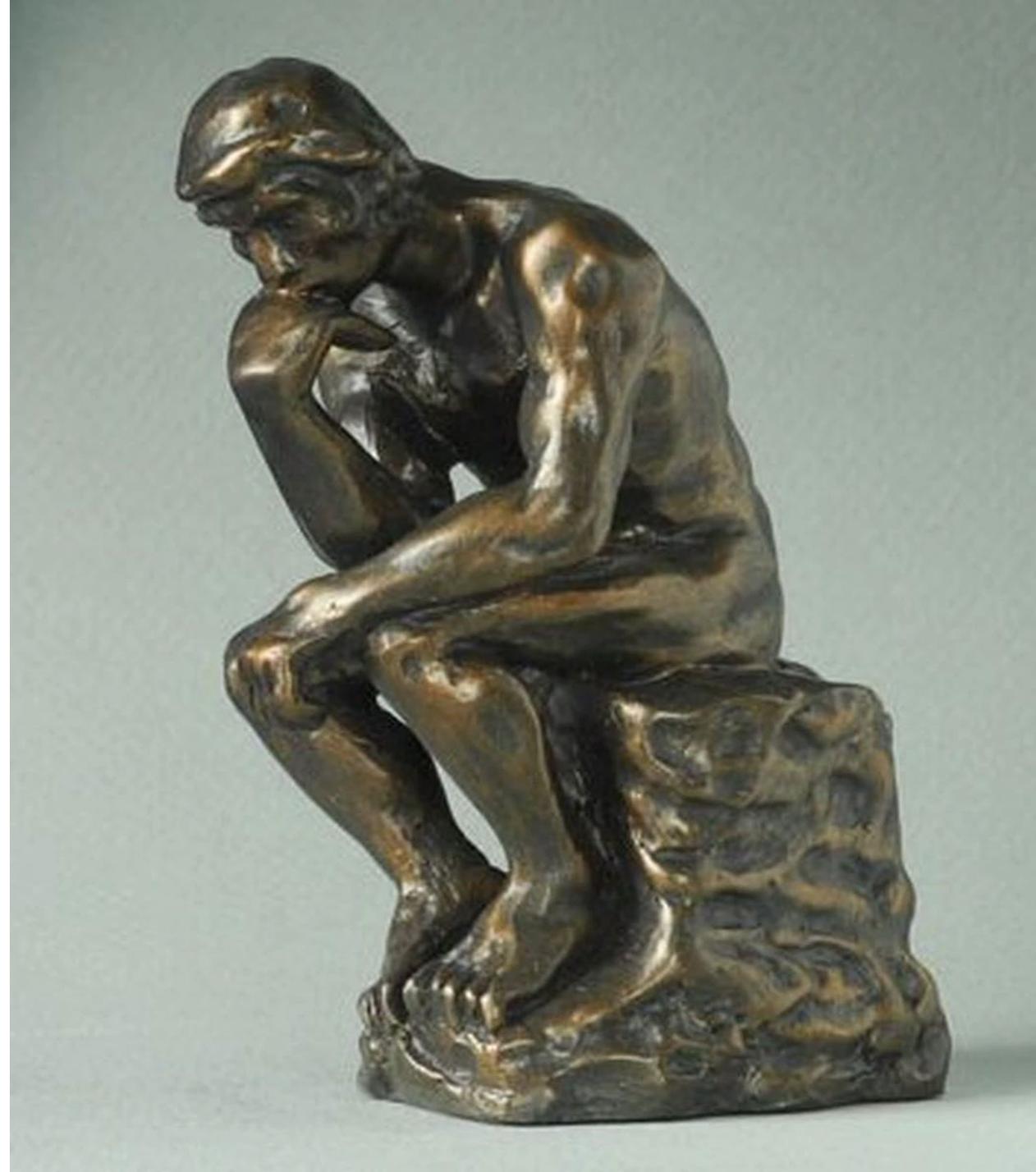
Luc Biedermann
Leitender Arzt Gastroenterologie

23.09.21



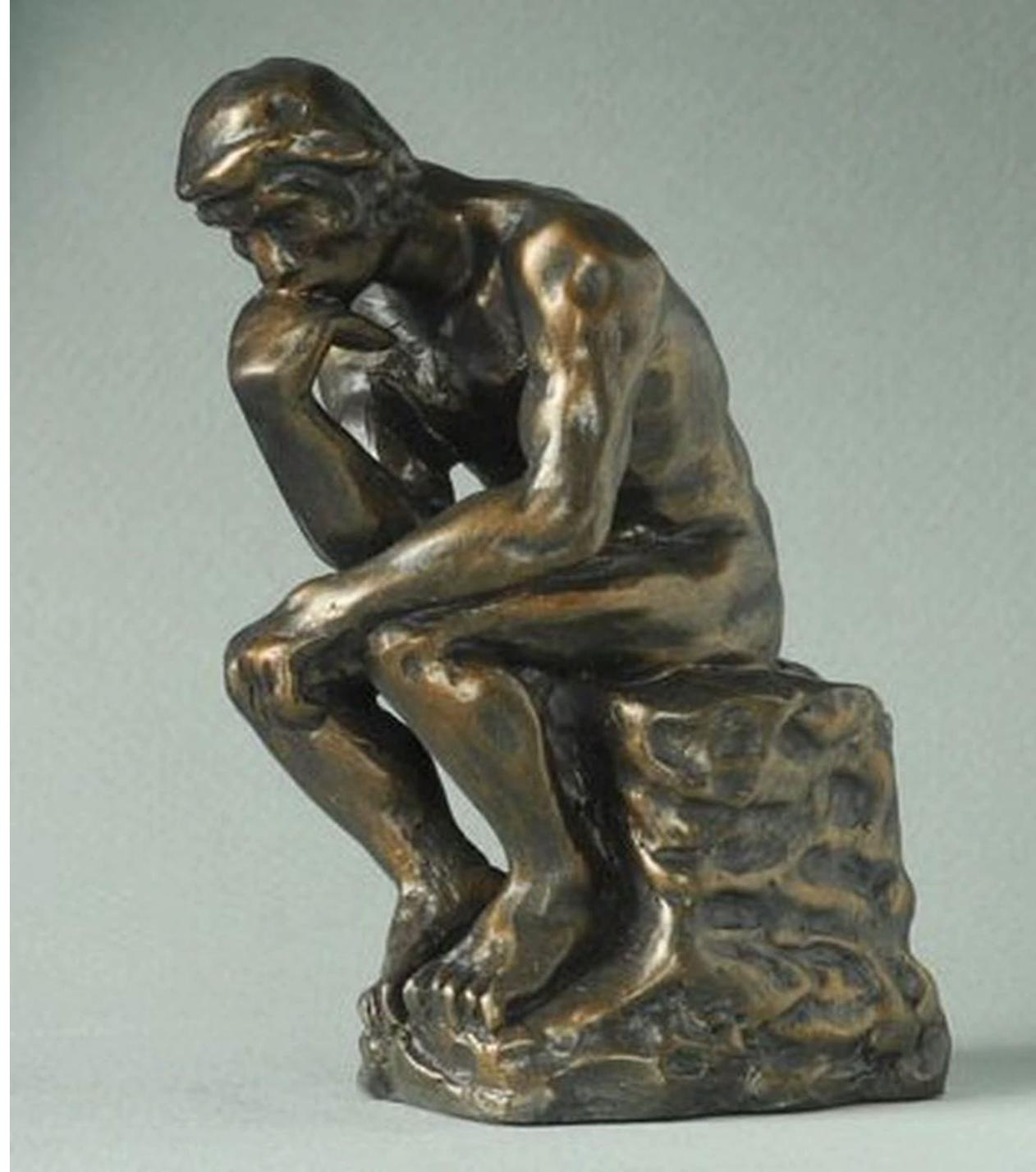
Diarrhoe & Arthralgien

- **Einleitung:**
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 - **Was ist Diarrhoe (was nicht)?**
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 - **Wichtige Erkrankungen mit beiden Symptomen**



Diarrhoe & Arthralgien

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Diarrhoe und Arthralgien:

WebMD symptoms

Diarrhea and Joint Pain

WebMD Symptom Checker helps you identify the causes of your symptoms, such as diarrhea and joint pain including joint pain.

There are 63 conditions associated with these symptoms. This page provides information on these medical conditions, including their symptoms, causes, and treatments.

Think you might have

- **Food poisoning**
Food poisoning can cause abdominal pain, diarrhea, and joint pain.
- **Irritable bowel syndrome**
Irritable bowel syndrome is a chronic condition of the intestine.
- **Traveler's diarrhea**
Traveler's diarrhea causes watery, loose stools.
- **Gastroenteritis**
Gastroenteritis is inflammation of the stomach and intestines.
- **Medication reaction or side-effect**
Medication side effects include diarrhea and joint pain.
- **Viral gastroenteritis**
Gastroenteritis (stomach flu) is caused by a virus.
- **Ulcerative colitis**
Ulcerative colitis causes swelling and pain in the colon.
- **Sickle cell disease**
Sickle cell disease is a genetic blood disorder.

- **Crohn's disease**
Crohn's disease is a digestive condition that causes inflammation in the digestive tract.
- **Tendinitis**
Tendinitis symptoms include muscle pain and swelling.
- **Campylobacter**
Campylobacter is an intestinal infection that causes diarrhea and vomiting.
- **Osteoarthritis**
Osteoarthritis happens when the cartilage between the bones wears down.
- **Antibiotic use**
Antibiotics can cause stomach pain and diarrhea.
- **Repetitive motion injuries**
Repetitive motion injuries can cause joint pain and swelling.
- **Lactose intolerance**
Lactose intolerance, or the inability to digest lactose, can cause diarrhea and joint pain.
- **Pseudogout**
Pseudogout is a type of arthritis that causes joint pain and swelling.
- **Septic arthritis**
Septic arthritis, a joint infection, can cause joint pain and swelling.
- **Drug overdose**
A drug overdose can be fatal and cause joint pain and swelling.
- **Inflammatory bowel disease**
Inflammatory bowel disease causes diarrhea and joint pain.
- **Slipped capital femoral epiphysis**
A slipped capital femoral epiphysis is a hip injury that causes joint pain and swelling.
- **Obesity**
Obesity is having too much body fat.

- **Iron poisoning**
Iron poisoning causes abdominal pain and joint pain.
- **Dislocated knee**
Symptoms of knee or kneecap dislocation include joint pain and swelling.
- **Lupus (systemic lupus erythematosus)**
Lupus is a chronic autoimmune disease that can cause joint pain and swelling.
- **Osgood-Schlatter disease**
Osgood-Schlatter disease causes knee pain and swelling.
- **Sarcoidosis**
Sarcoidosis is a rare disease that causes joint pain and swelling.
- **Sickle cell crisis**
Sickle cell crisis causes sudden joint pain and swelling.
- **Giardiasis**
Giardiasis is an infection of the small intestine that causes joint pain and swelling.
- **Hyperthyroidism**
Hyperparathyroidism can cause joint pain and swelling.
- **Amebiasis**
Amebiasis is an intestinal parasitic infection that causes joint pain and swelling.
- **Osteochondritis dissecans**
Osteochondritis dissecans is a joint injury that causes joint pain and swelling.
- **Knee strain**
A knee strain is a stretch or tear of the ligaments or tendons around the knee.
- **Sporotrichosis**
Sporotrichosis is a fungal infection that causes joint pain and swelling.
- **Psoriatic arthritis**
Psoriatic arthritis most often causes joint pain and swelling.

- **Diverticulosis**
Diverticulosis is a condition of the colon that causes joint pain and swelling.
- **Bursitis (pre-patellar)**
Prepatellar bursitis, a swelling of the bursa in front of the knee, causes joint pain and swelling.
- **Knee meniscus tear**
A meniscus tear, damage to a piece of cartilage in the knee, causes joint pain and swelling.
- **Shigellosis**
Shigellosis is irritation of the stomach and intestines that causes joint pain and swelling.
- **Stool holding (encopresis)**
Young children with encopresis soil their clothes.
- **Stress fractures**
Stress fractures are small breaks that cause joint pain and swelling.
- **Rheumatic fever**
Rheumatic fever is an inflammatory disease that causes joint pain and swelling.
- **Rheumatoid arthritis**
Rheumatoid arthritis is an autoimmune disease that causes joint pain and swelling.
- **Rotavirus**
Rotavirus is an inflammation of the small intestine that causes joint pain and swelling.
- **Salmonella**
Salmonella are a type of bacteria that cause joint pain and swelling.
- **Lyme disease**
Lyme disease is a bacterial infection that causes joint pain and swelling.
- **Juvenile rheumatoid arthritis**
Juvenile rheumatoid arthritis or JRA is a type of arthritis that causes joint pain and swelling.
- **Cystic fibrosis**
Cystic fibrosis is an inherited disease that causes joint pain and swelling.
- **Gout**
Gout is a type of arthritis that causes joint pain and swelling.

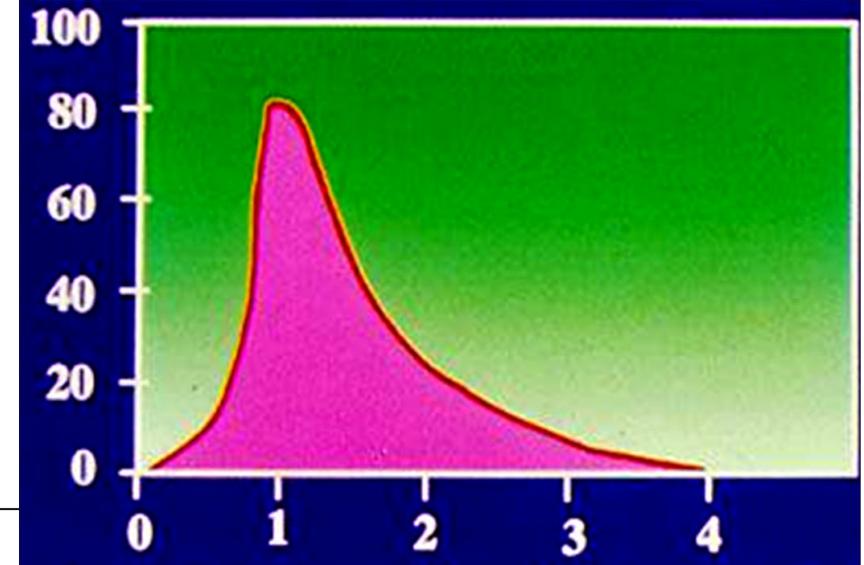
- **ACL knee injury**
An ACL injury happens when you tear or overstretch the anterior cruciate ligament.
- **Antibiotic-associated diarrhea**
Antibiotic-associated diarrhea is frequent, watery stools.
- **Celiac disease**
Celiac disease, which is an intestinal reaction to gluten, causes joint pain and swelling.
- **Patellofemoral pain syndrome**
Many people with pain around the kneecap have patellofemoral pain syndrome.
- **Colon cancer**
Colon cancer is often asymptomatic, but it can cause joint pain and swelling.
- **Henoch-Schonlein purpura**
Henoch-Schonlein purpura is a condition that causes joint pain and swelling.
- **Mesenteric lymphadenitis**
Mesenteric lymphadenitis is an inflammation of the lymph nodes in the abdomen that causes joint pain and swelling.
- **Typhoid fever**
Typhoid fever is a life-threatening illness and weakness.
- **Posterior cruciate ligament (PCL) injury**
A posterior cruciate ligament injury causes joint pain and swelling.
- **Ricin poisoning**
Ricin is a dangerous poison in castor beans that causes joint pain and swelling.
- **Toxic shock syndrome**
Toxic shock syndrome is a life-threatening illness that causes joint pain and swelling.
- **Radiation sickness**
Radiation sickness is a condition that causes joint pain and swelling.
- **Shingles (herpes zoster)**
Shingles is a painful, blistering skin rash that causes joint pain and swelling.

- **Cholera**
Cholera is a bacterial infection that causes joint pain and swelling.
- **Carcinoid syndrome**
Carcinoid syndrome is a group of symptoms that occur in people who have carcinoid tumors.

Diarrhoe - Definition

- Textbuchdefinition:
 - Stuhlgewicht >200 g/24h
 - Stuhlfrequenz >3 x/24h
 - Dünne Stuhlkonsistenz
- Klinisch-praktische Definition:
 - Weicher bzw. dünnflüssiger Stuhl u/o
 - Erhöhte Stuhlfrequenz (>3 x/24h)
- Definition „Chronisch“: Persistenz $> (2) - 4$ Wochen
- Wichtig: Abgrenzung zur Stuhlinkontinenz

Frequency of bowel movement in general population



Mean number of bowel movement / day



Diarrhoe - Definition

Bristol Stool Chart



Type 1 Separate hard lumps, like nuts



Type 2 Sausage-like but lumpy



Type 3 Like a sausage but with cracks in the surface



Type 4 Like a sausage or snake, smooth and soft



Type 5 Soft blobs with clear-cut edges



Type 6 Fluffy pieces with ragged edges, a mushy stool



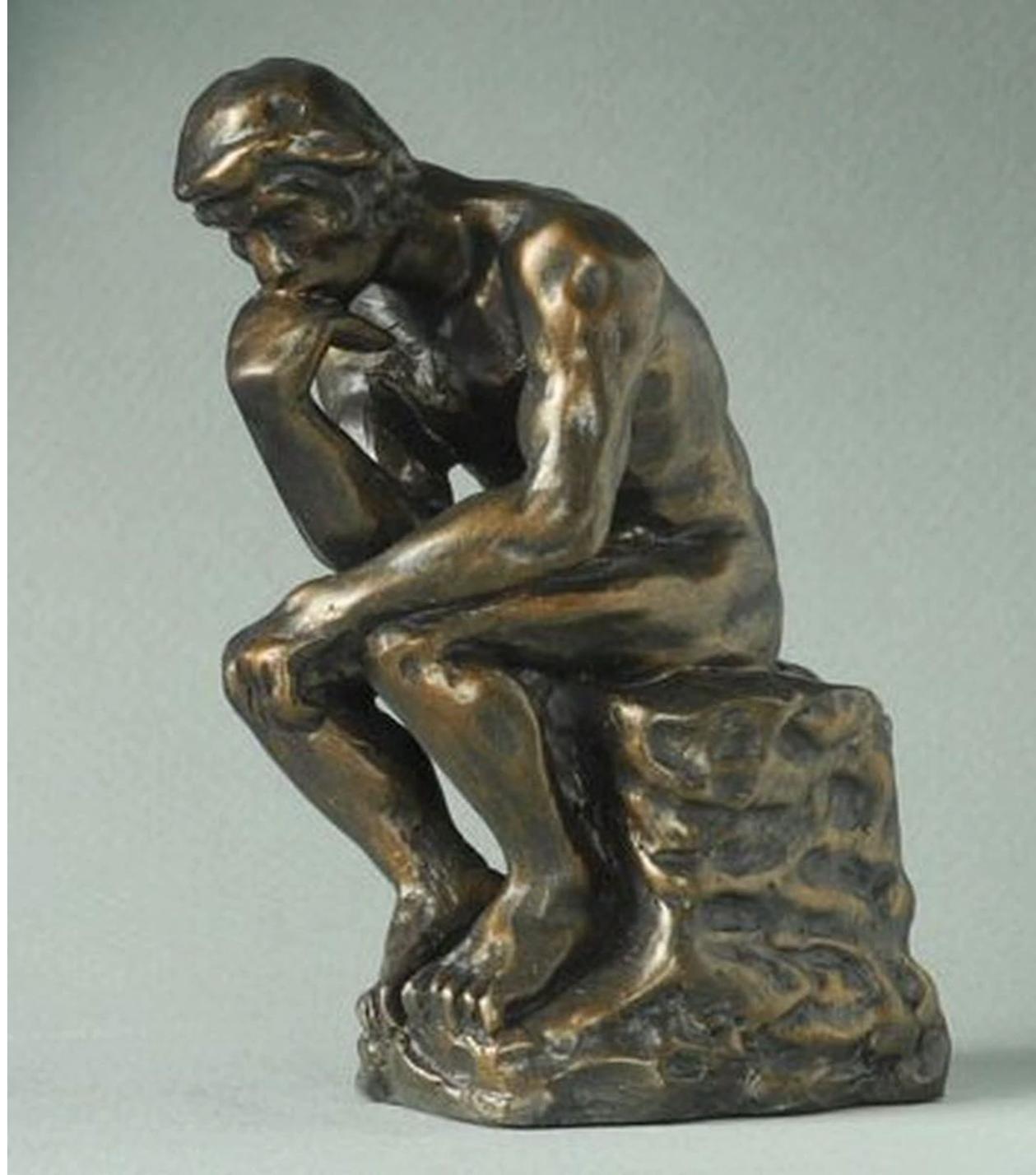
Type 7 Watery, no solid pieces



- 5-7 tendiert zur Diarrhoe

Diarrhoe & Arthralgien

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Acute Diarrhea

```
graph TD; A[Acute Diarrhea] --> B[Infectious]; A --> C[Non infectious];
```

Infectious

Non infectious

Non infectious acute diarrhea

- ⚙ **Drug induced**
- ⚙ **Diet**
- ⚙ **Poisoning**

Akute Diarrhoe (+/- reaktive Arthritis) – PCR Tests?



Erreger des Panels

Bakterien

- *Salmonella* *
- *Shigella* / Enteroinvasive *E. coli* (EIEC) *
- *Campylobacter*
(nur *C. jejuni*, *C. coli*, *C. lari*) *
- *Yersinia enterocolitica* *
- *Vibrio cholerae* *
- Enterohämorrhagische *E. coli* (EHEC) mit den

Toxinen

- Enterotoxine
- *Clostridi*

Viren

- Rotavirus A
- Adenovirus 40/41
- Norovirus

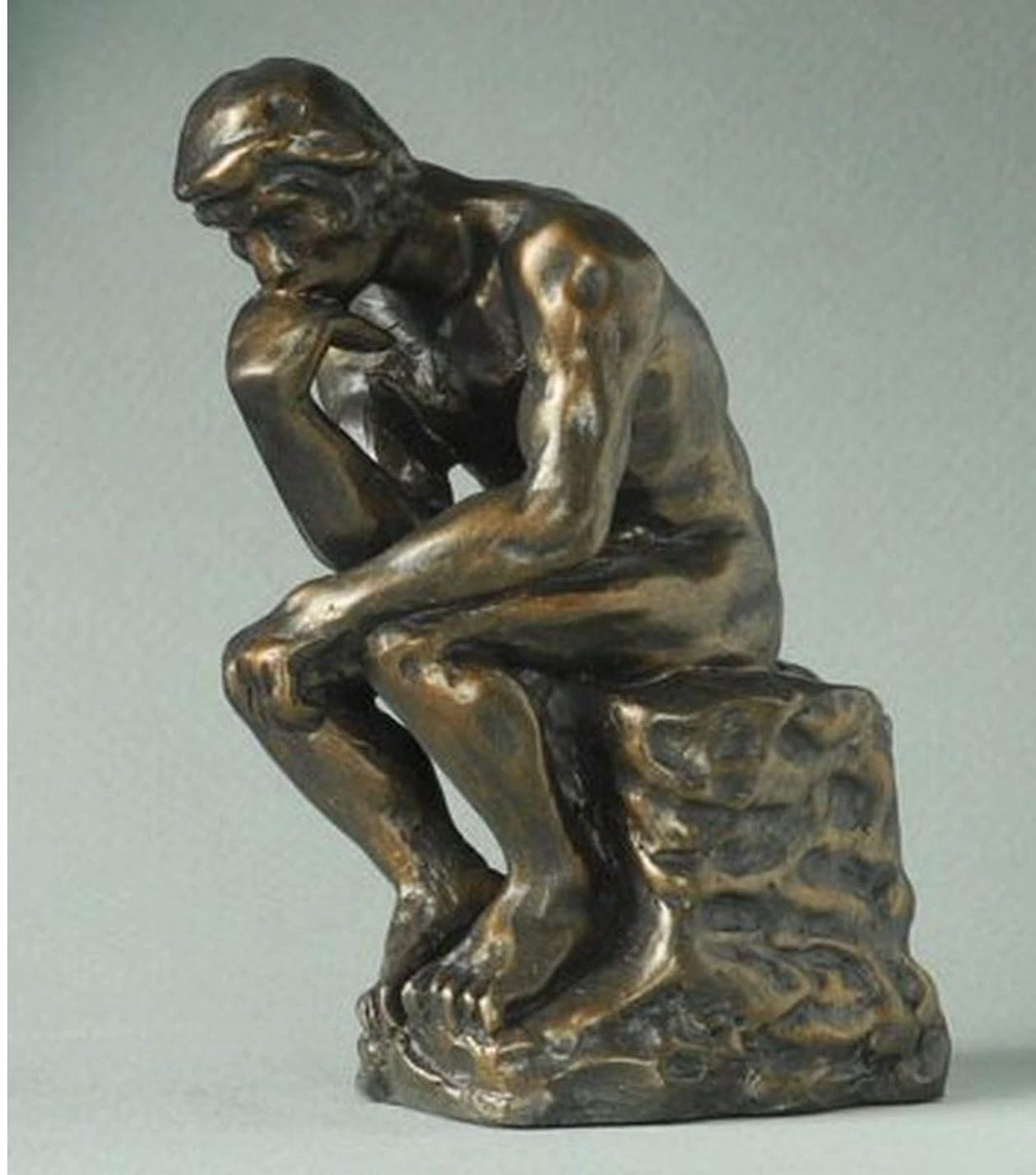
Parasiten

- *Giardia lamblia*
- *Entamoeba histolytica*
- *Cryptosporidium*

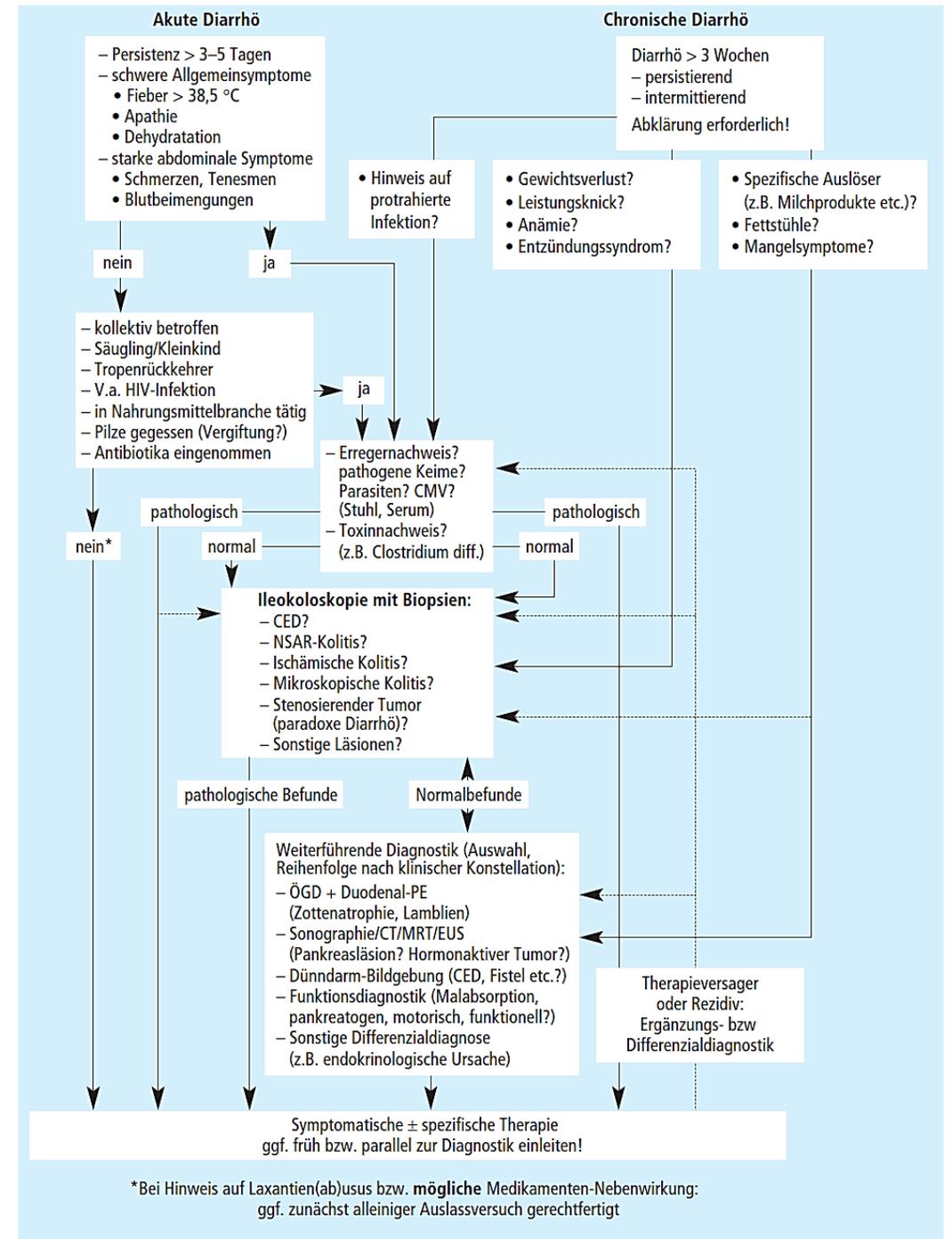
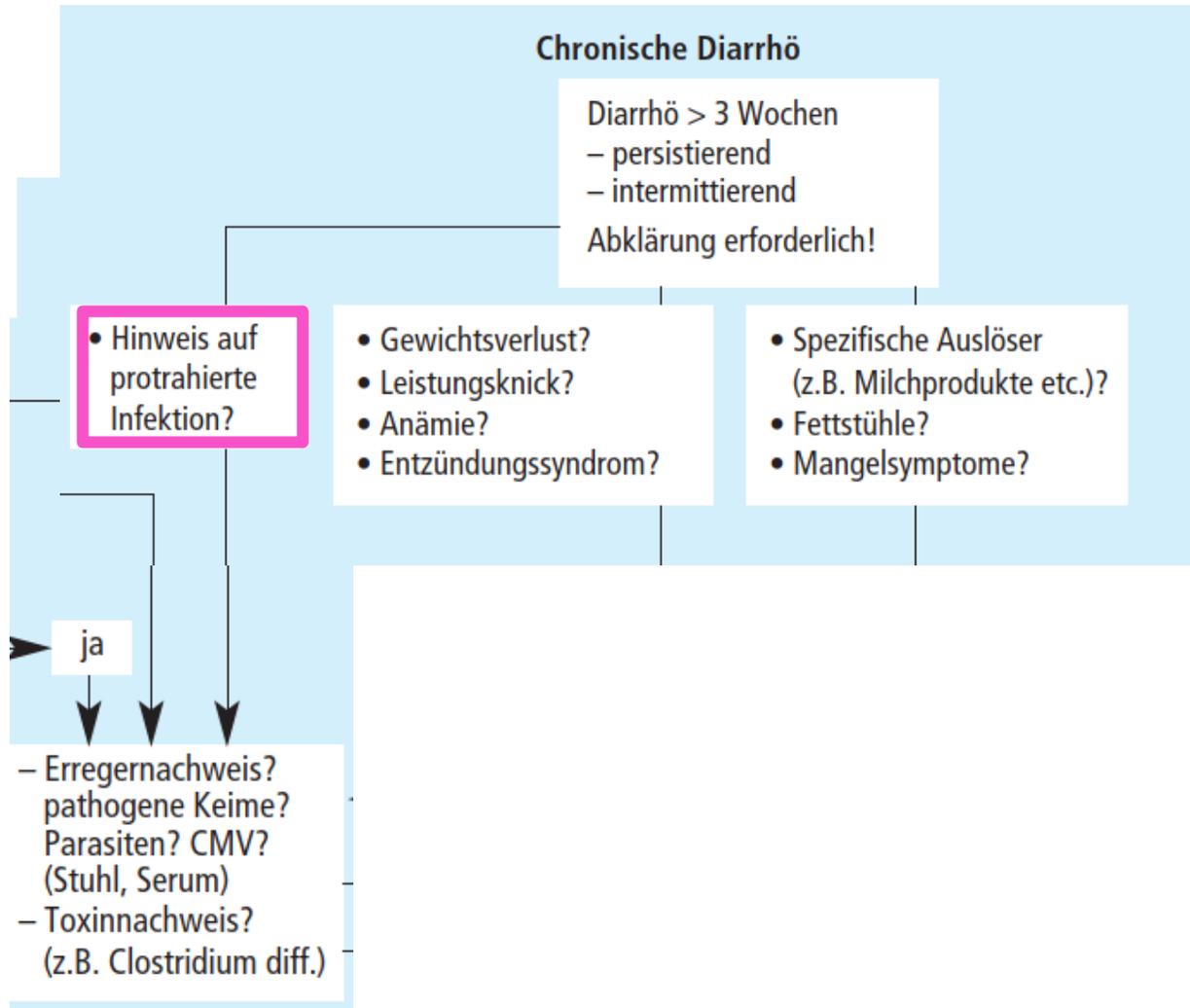
Antecedent or concomitant infection — Laboratory tests, such as stool cultures to test for *Salmonella*, *Shigella*, *Campylobacter*, and *Yersinia*, can sometimes confirm a preceding or concomitant infection with one of the pathogens that classically induce reactive arthritis. However, by the time patients develop arthritis, the diarrhea has usually resolved, and the pathogens may no longer be retrievable. Urine and genital

Diarrhoe & Arthralgien

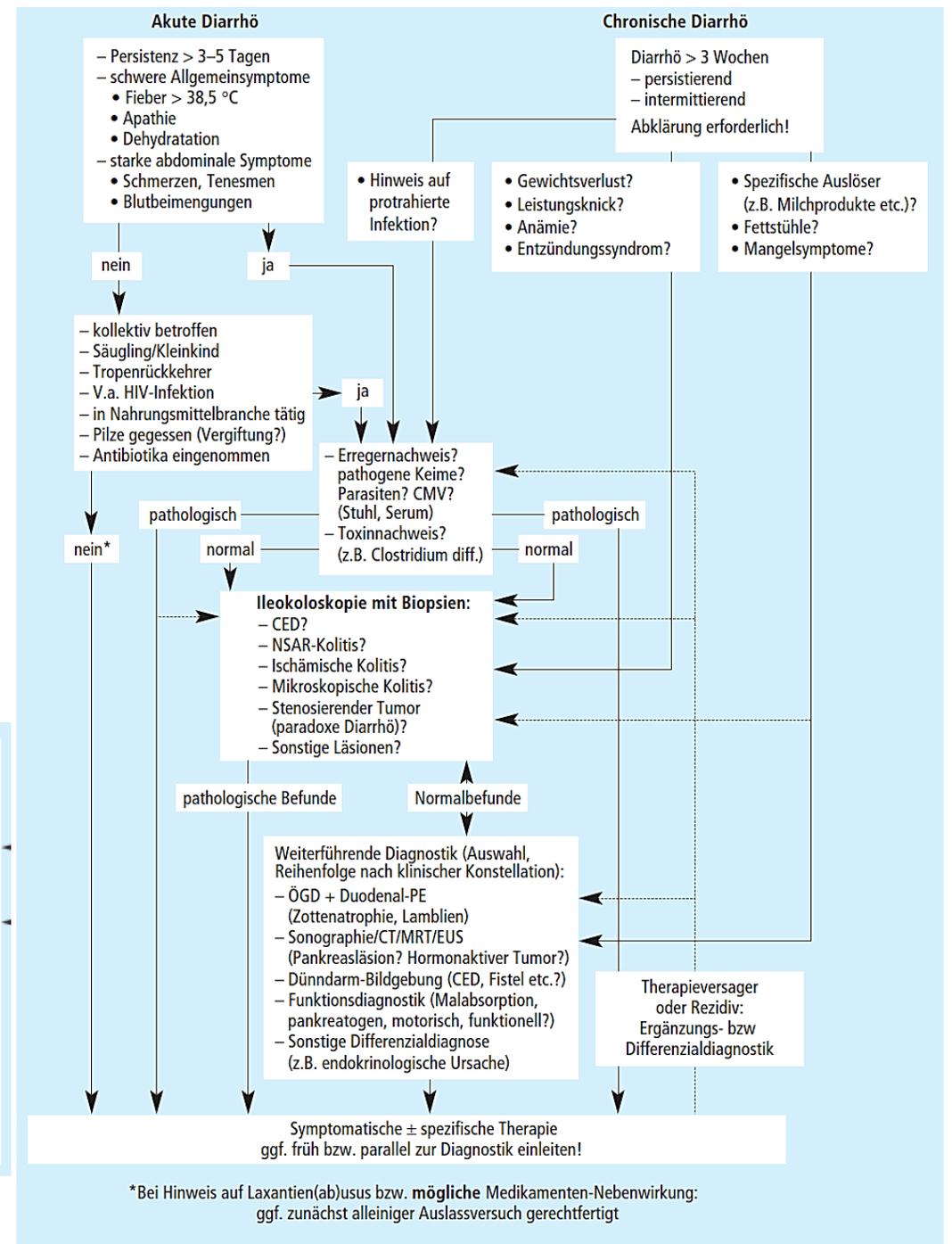
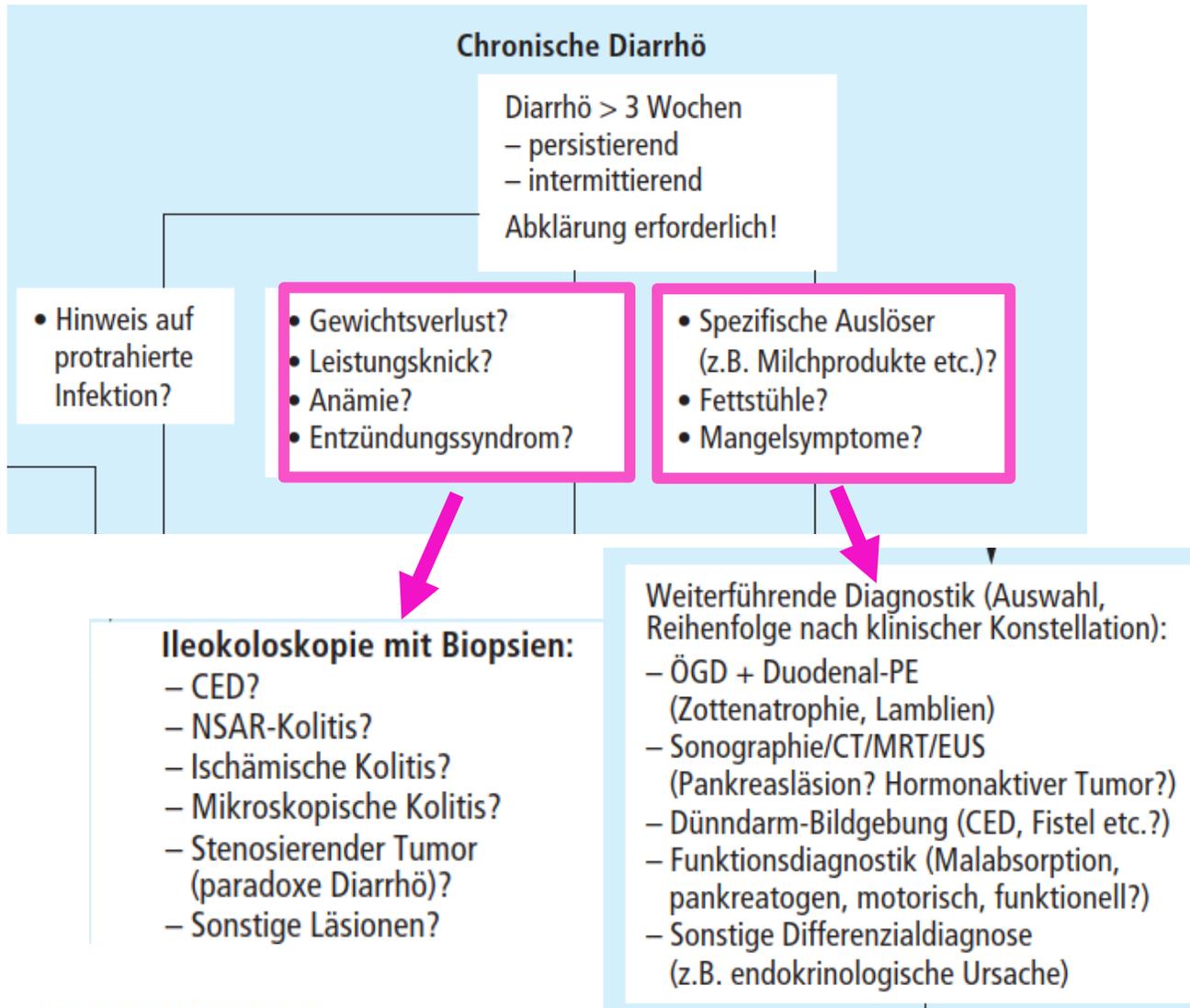
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Chronische Diarrhoe - Diagnostik



Chronische Diarrhoe - Diagnostik



Chronische Diarrhoe & Arthralgien – 1 vs. 2?

Occam Razor vs Hickman's Dictum





Chronische Diarrhoe & Arthralgien – 2 parallele Ursachen

Table 1. Causes and clinical features of polyarticular joint pain.

	Sex	Age	Accompanying findings	Laboratory
Fibromyalgia	F>>M	30-55	Fatigue and sleep disturbances, cognitive disturbances, psychiatric symptoms, headache, paresthesia	None
Osteoarthritis	F>M	>60	Pain is worse with joint use, bony swelling, joint deformity such as Heberden's nodule	None
Osteomalasia	F=M	nr	Muscle weakness, spasms and cramps, difficulty walking, fracture	Increased ALP, PTH; reduced Ca, P, 25-hydroxy vitamin D
Thyroid dysfunction	F>M	30-55	Palpitations, sweating, weight loss, hair loss	Abnormalities of TSH, sT4
Hyperparathyroidism	F>M	>60	Weakness and fatigue, polyuria, polydipsia, osteoporosis	Increased PTH, Ca; reduced P
Hypermobility syndromes	F>M	<30	Recurrent joint subluxations, hyperextensible skin, bowel symptoms	None
Malignancies	F=M	nr	Weight loss, fever, pain at rest and at night	Hypercalcemia, increased LDH, cytopenia

F: Female, M: Male, nr: Specific age range not reported, ALP: Alkaline phosphatase, PTH: Parathyroid hormone, TSH: Thyroid stimulating hormone, Ca: Calcium, P: Phosphorus, LDH: Lactate dehydrogenase

Table 2. Clinical features of common rheumatic diseases causing polyarthritis.

	Age			Sex		Classification of polyarthritis
	<40	40 -60	>60	Female	Male	
Rheumatoid arthritis	+	+++	++	++	+	Mainly affects small joints, symmetric, additive
Psoriatic arthritis	+++	+++	+	++	++	Affects small, large, axial joints, asymmetrical, additive
Ankylosing spondylitis	+++	++	+	+	++	Mainly affect large joints, asymmetrical, additive
Reactive arthritis	+++	++	+	++	++	Mainly affects large joints, asymmetrical, migratory
Crystal arthropathy	+	++	+++	++	+	Mainly affects small joints, asymmetrical, intermittent
Systemic lupus erythematosus	+++	++	+	++++	+	Mainly affects small joints, symmetric, additive
Systemic vasculitis	++	+++	++	+++	++	Mainly affects small joints, symmetric, additive.

- Einige häufige Erkrankungen mit Arthralgien/Arthritis Plus...



Chronische Diarrhoe & Arthralgien – 2 parallele Ursachen

IBS (Irritable bowel syndrome)



Pooled IBS prevalence: 11.2%

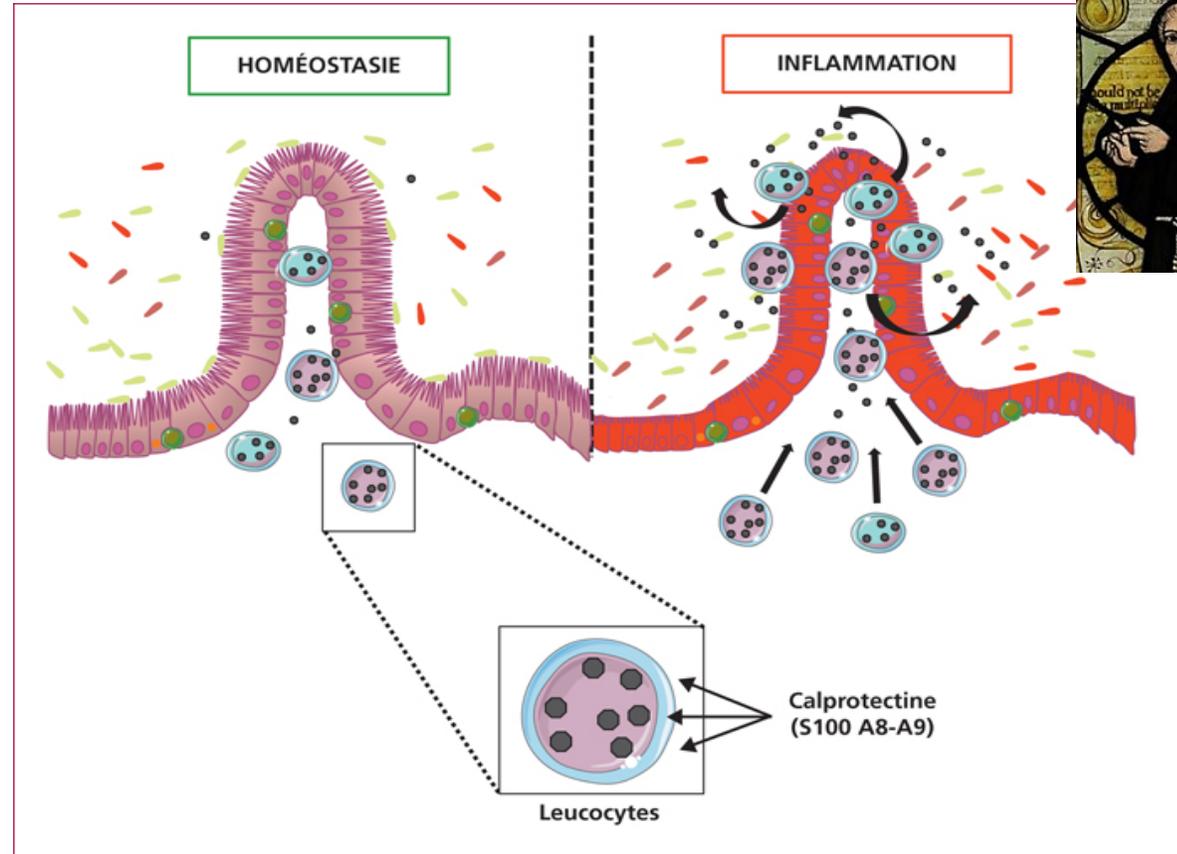
- Einige häufige Erkrankungen mit Arthralgien/Arthritis Plus... eine häufige

Organisch vs. Funktionell

- shorter duration of diarrhea (less than 3 months),
- nocturnal diarrhea,
- an abrupt onset of diarrhea,
- weight loss of more than 5.0 kg, and
- stool weight of more than 400 g per day.

Irritable bowel syndrome is the most common cause of functional diarrhea in the developed world.

Fäkales Calprotectin



Calprotectinwert proportional zu Neutrophilen-Migration in GI-Trakt (nicht durch Bakterien abgebaut)

Ausdruck intestinaler Schrankenstörung

- DD Infektion, Ischämie, Tumoren/Polypen, Divertikulitis, Blutungen, Zöliakie,...

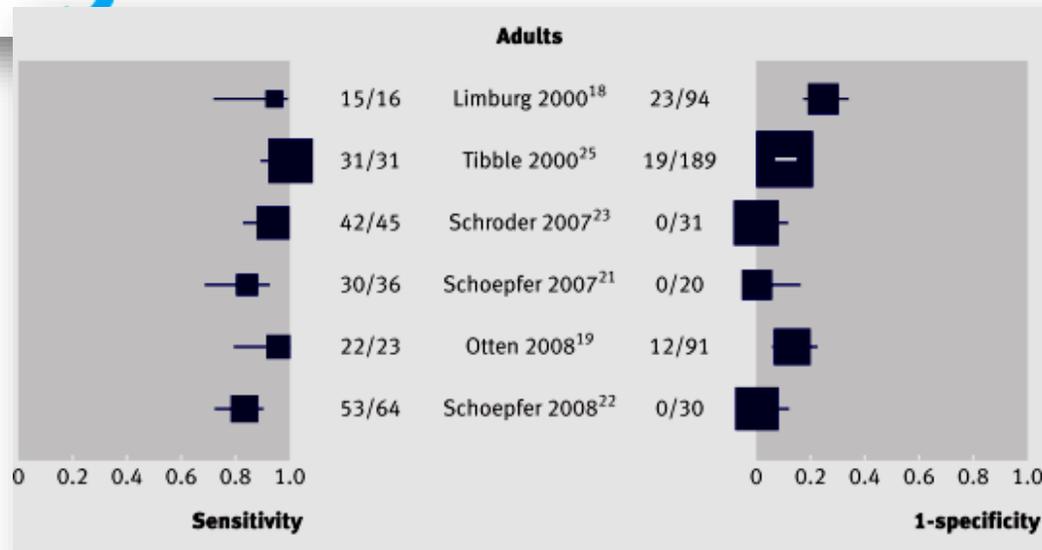
Fäkales Calprotectin

Calprotectinwert proportional zu Neutrophilen-Migration in GI-Trakt (nicht durch Bakterien abgebaut): Ausdruck intestinaler Schrankenstörung

- Rolle für das **Fäkale Calprotectin** bei der Unterscheidung IBD vs. IBS?



BMJ Faecal calprotectin for screening of patients with suspected inflammatory bowel disease: diagnostic meta-analysis

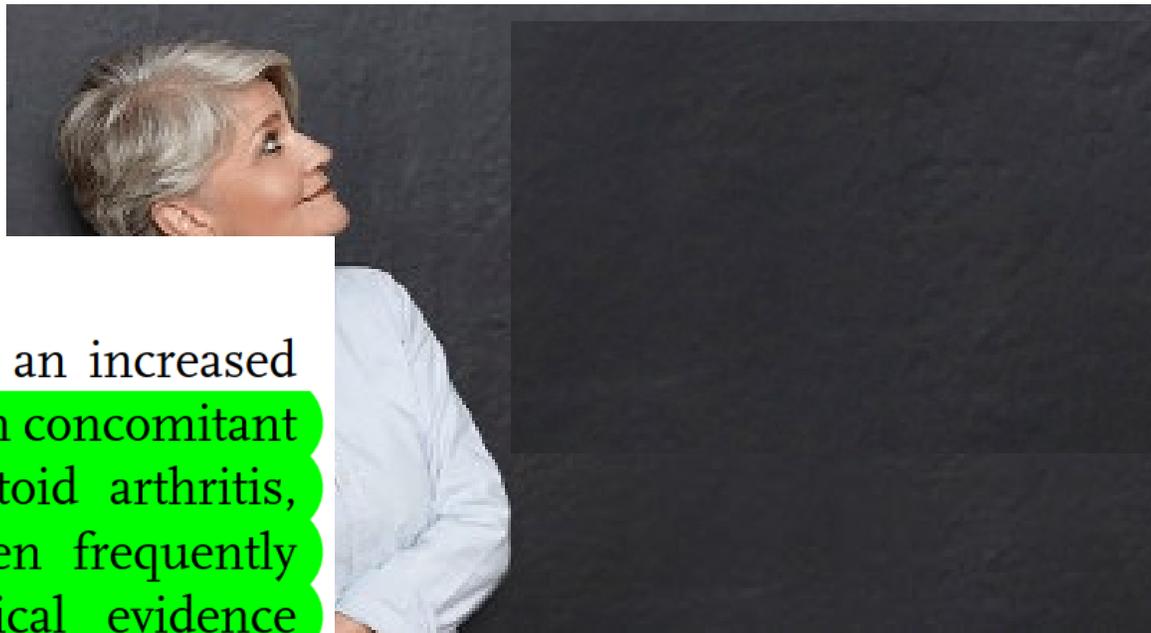


Pooled Sensitivität und Spezifität:

0.93 resp. **0.96**

Fäkales Calprotectin bei dieser GI-Affektion?

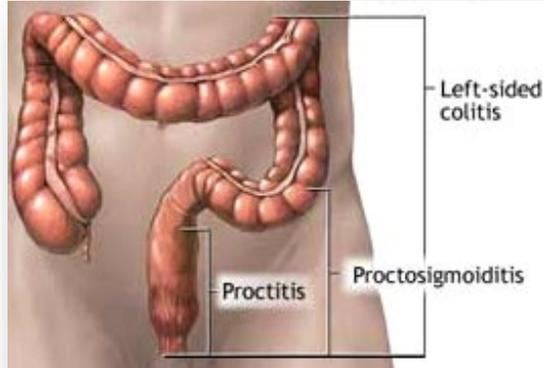
- Erst «vor kurzem» Entwicklung einer chronischen Diarrhoe...
- 38% der Patienten mit mikroskopischer Colitis hatten **keine Calprotectinerhöhung**



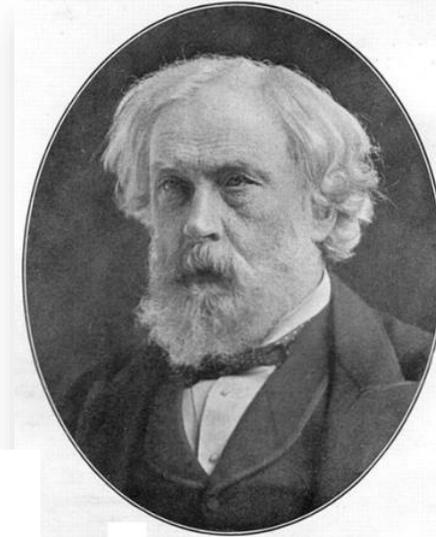
Risk factors

Various factors have been associated with an increased risk of microscopic colitis. Associations with concomitant autoimmune disorders, such as rheumatoid arthritis, thyroiditis, and coeliac disease, have been frequently reported,^{14,15} but convincing immunological evidence underpinning these associations is lacking. Smoking has

Chronische Diarrhoe & Arthralgien – 1 gemeinsame Ursache



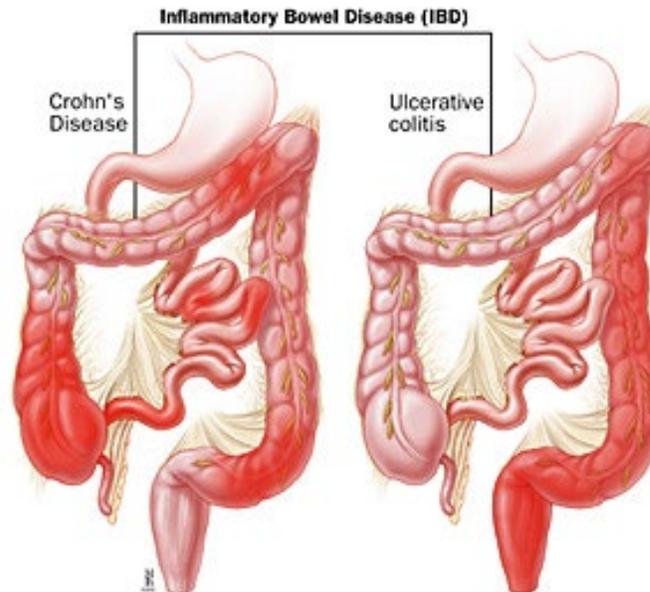
Burrill B. Crohn (1884–1983)



Sir Samuel Wilks

Colitis ulcerosa + Morbus Crohn





**M. Crohn
(n = 279)**

**Colitis ulcerosa
(n = 113)**



Durchfall	89.5 %	96.4 %
Blutiger Stuhlgang	27.3 %	89.3 %
Schmerzen	86.9 %	81.3 %
Müdigkeit (fatigue)	81.7 %	40.2 %
Gewichtsverlust	59.6 %	38.4 %
Gelenkschmerzen	29.2 %	27.7 %
Fieber	24.7 %	20.5 %
Haut Erscheinungen	14.2 %	15.2 %

Musculoskeletal Extraintestinal Manifestations in IBD



Arthritis of the right knee



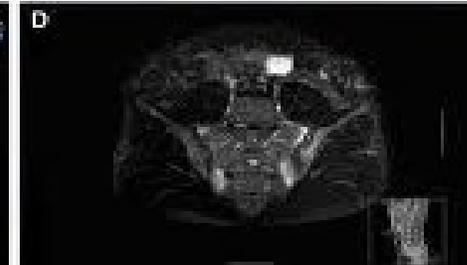
Enthesitis of the right Achilles tendon



Dactylitis of digit III of the right hand



Active sacroiliitis on MRI with bone marrow edema



Peripheral Spondylarthropathies (SpA)

Type 1 Pauciarticular (<5 joints)

Type 2 Polyarticular (≥ 5 joints)

Type 3 Axial SpA

	CD	UC	CD	UC	CD	UC
Prevalence	10-20%	5-14%	10-20%	5-14%	5-22% 6%	2-6%
Treatment	treating the underlying bowel disease and achieving symptom relief		clinical course independent of IBD activity		physical therapy for back exercises	

Brakenhoff L et al. Gut. 2011

Ardizzone S, et al. Dig Liv Dis. 2008

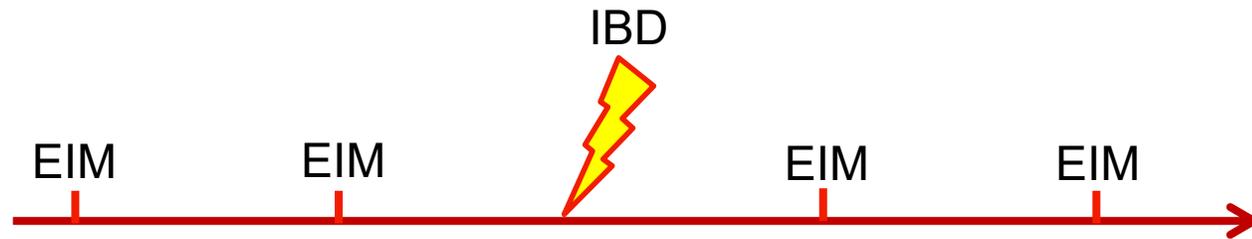
Larsen S, et al. Annals of Medicine, 2010

Arvikar S, et al. Curr Rev Musculoskelet Med. 2011

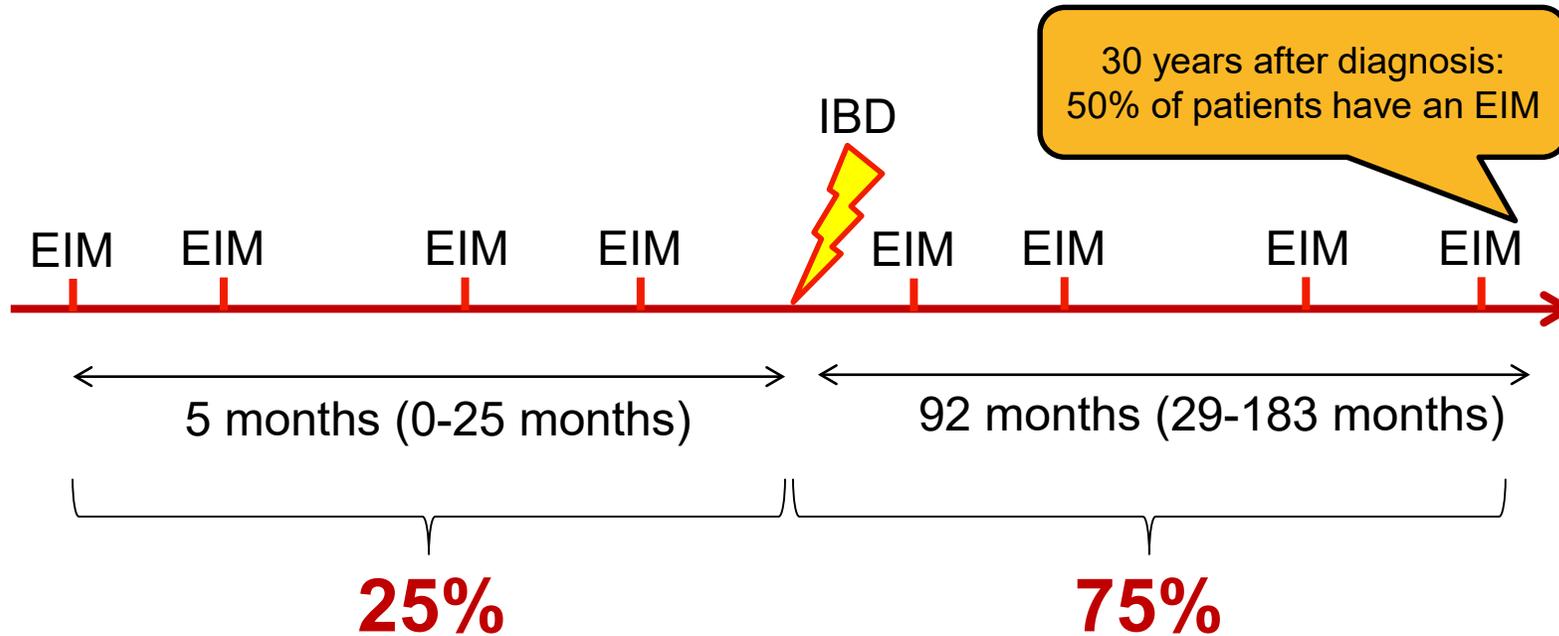
Bourikos L, et al. Inflamm Bowel Dis. 2009



- There is a lack of data evaluating the chronology between IBD diagnosis and the occurrence of EIM

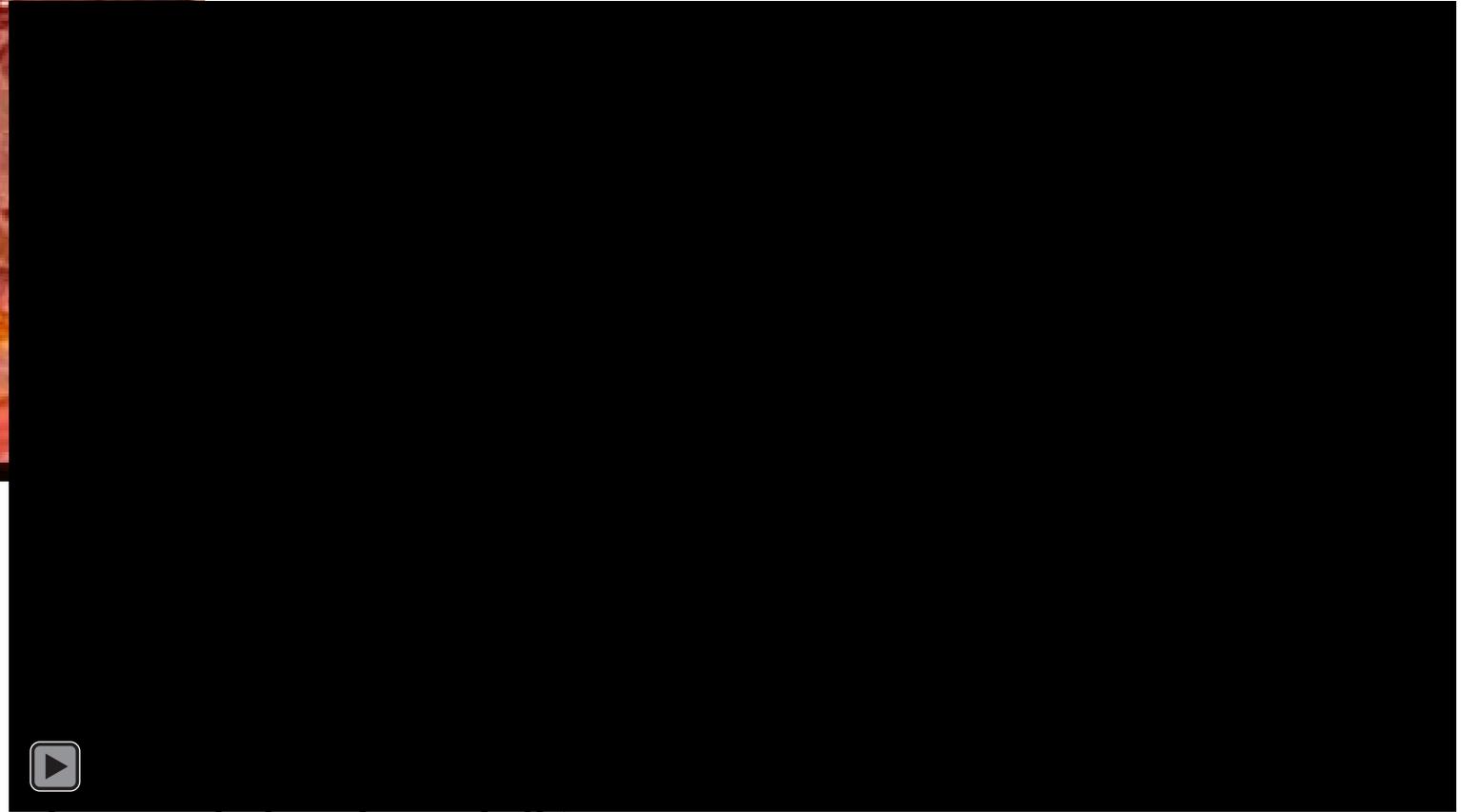
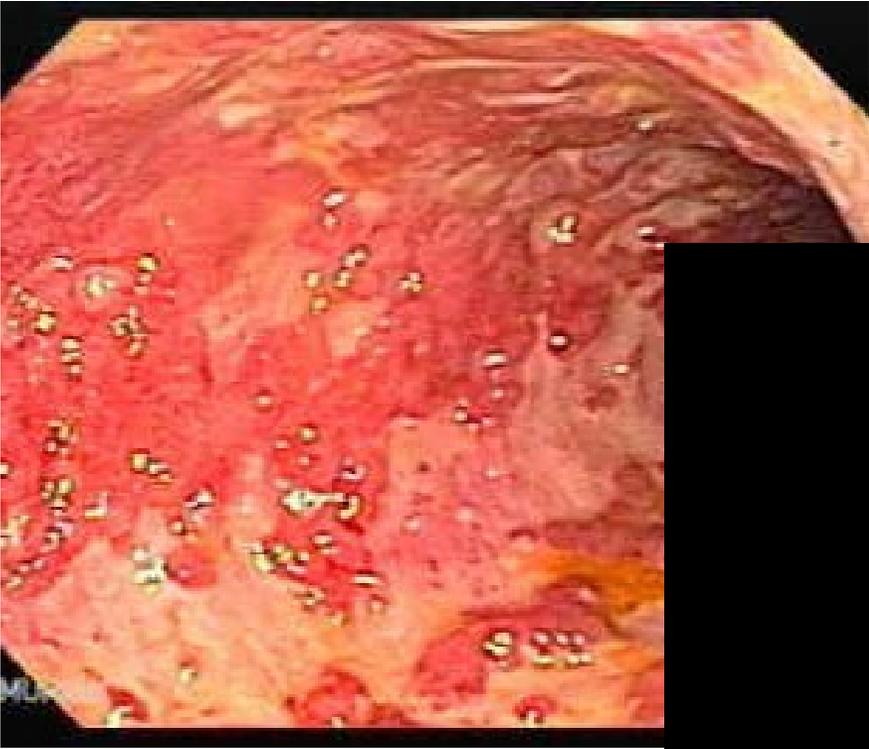


- In Switzerland: 25% of CD patients need >24 months for diagnosis and 25% of UC patients need >12 months for diagnosis



- The occurrence of an EIM should motivate the search for an underlying IBD especially as soon as suggestive symptoms occur, thereby reducing the diagnostic delay

Diagnostik bei V.a. IBD – CRP zur Nach intestinaler Inflammation...



- Das gute alte CRP...
- ...einfach, billig...
- ...»das kenn' ich – das kann ich einschätzen...«;
- Darauf ist Verlass....!
- ...?
- Leider Nein! -Oft normal, trotz schwerster Colitis!

Chronische Diarrhoe & Arthralgien – 1 gemeinsame Ursache



Zöliakie

I hope this is gluten free. Don't even know what that means but it seems to be the trend these days.



your  cards
someecards.com



Zöliakie

• Arthralgien...?

- “Arthritis might be more common in patients with coeliac disease than previously considered¹”
- Gehäuft auch bei Kindern
- Sakroileitis relative häufig bei CeD (Szintigraphie)
- Case-control Studie: 26% mit CeD hatten eine Arthritis gegenüber 7.5% in der Kontrollgruppe²

Table 1 | Extraintestinal manifestations of coeliac disease

Manifestation	Prevalence	Pathophysiology	Testing and treatment	References
Anaemia	Common	Nutritional deficiencies: iron most frequently followed by folate and vitamin B ₁₂ Chronic inflammation	Regular testing of haemoglobin and vitamin status recommended	17,19
Reduced bone density	Common	Nutritional, inflammatory, autoimmune	BMD testing recommended within 1 year of diagnosis	30,35
Arthritis	Common	Inflammatory and/or autoimmune	Evaluation of symptomatic individuals	51,52
Dermatitis herpetiformis	Uncommon	Autoimmune: crossreaction of TG2 antibodies with TG3 in skin	Skin biopsy of suspected disease, adjunctive treatment with dapsone	54,55,56
Eczema or psoriasis	Uncommon	Inflammatory	Consider coeliac disease in severe psoriasis	59,60
Gluten ataxia	Rare	Autoimmune	Coeliac disease testing in idiopathic ataxia	72,74
Autism	Not clearly associated	Unknown	Coeliac disease testing in ASD is reasonable	79,81
Schizophrenia	Not clearly associated	Unknown	Coeliac disease testing not typically recommended	86,90
Peripheral neuropathy	Common	Autoimmune, inflammatory	Coeliac disease testing in unexplained neuropathy	92
Short stature	Common in paediatric populations	Nutritional, hormonal, inflammatory	Coeliac disease testing in growth delay	94,98
Delayed puberty	Uncommon	Nutritional, hormonal, inflammatory	Coeliac disease testing in affected individuals	99
Hepatitis	Common	Inflammatory, autoimmune	LFT testing in patients with coeliac disease, coeliac disease testing in unexplained liver disease	105,106
Cardiovascular manifestations	Not clearly associated	Nutritional, inflammatory	None	119,124
Splenic manifestations	Uncommon	Autoimmune, inflammatory, haemodynamic	Consider vaccination against influenza, pneumococcus	112
Pulmonary manifestations	Rare	Autoimmune	None	114
Renal manifestations	Rare	Autoimmune	None	116
Pancreatic manifestations	Uncommon	Obstructive, inflammatory	Pancreatic exocrine testing in nonresponsive coeliac disease	126,127
Reproductive manifestations including impaired fertility	Uncommon	Nutritional, inflammatory, autoimmune	Coeliac disease testing in unexplained infertility	129,130
Dental	Uncommon	Nutritional, inflammatory	Coeliac disease testing in dental enamel defects	133



Who should be tested – and how?



High Risk Patients

Routinely Test for CD: Consider Endoscopy even if Serology Negative

- (1) Chronic gastrointestinal symptoms with a family history of celiac disease or a personal history of autoimmune disease or IgA deficiency
- (2) Biopsy proven dermatitis herpetiformis
- (3) Chronic diarrhea
- (4) Failure to thrive in children
- (5) Iron deficiency anemia refractory to oral supplementation

Medium Risk Patients

Consider CD Serologic Testing: CD Sufficiently Excluded if Serology Negative

- (1) Irritable bowel syndrome
- (2) Elevated liver function tests
- (3) Iron deficiency anemia
- (4) Fatigue/lethargy
- (5) Chronic gastrointestinal symptoms without a family history of celiac disease or a personal history of autoimmune disease
- (6) Peripheral neuropathy
- (7) Ataxia
- (8) Dental enamel defects
- (9) Recurrent aphthous ulcerations
- (10) Hyposplenism
- (11) Fertility abnormalities
- (12) Down's or Turner's syndrome
- (13) Known IgA deficiency
- (14) Microscopic colitis

Low Risk Patients

Consider testing if refractory to standard therapy or other clinically unusual features: CD sufficiently excluded if serology negative

- (1) Osteopenia/osteoporosis
- (2) Fibromyalgia
- (3) Chronic Fatigue Syndrome
- (4) Heartburn/GERD
- (5) Acute or chronic pancreatitis
- (6) Alopecia
- (7) Myalgias/Arthralgias
- (8) Autoimmune liver disease
- (9) Personal history of autoimmune disease or connective tissue disease without ongoing unexplained symptoms
- (10) Skin lesions other than dermatitis herpetiformis
- (11) Headaches including migraines
- (12) Mood disorders
- (13) Attention deficit disorder/cognitive impairment
- (14) Epilepsy
- (15) Restless leg syndrome

Chronische Diarrhoe & Arthralgien – 1 gemeinsame Ursache

M. Whipple

- Tropheryma whipplei
- Gruppe der Aktinomyzeten
- Menschen sind einziger Wirt
- Ca. 30 Fälle / Jahr weltweit
- M:F = 3:1, Schnitt 55 Jahre (selten <30 Jahre)
- Am ehesten kontaminiertes Wasser, fäko-orale Transmission / direkte Übertragung
- 2-4% der gesunde Bevölkerung kolonisiert
- Bei Kanalarbeitern bis 25%
- :



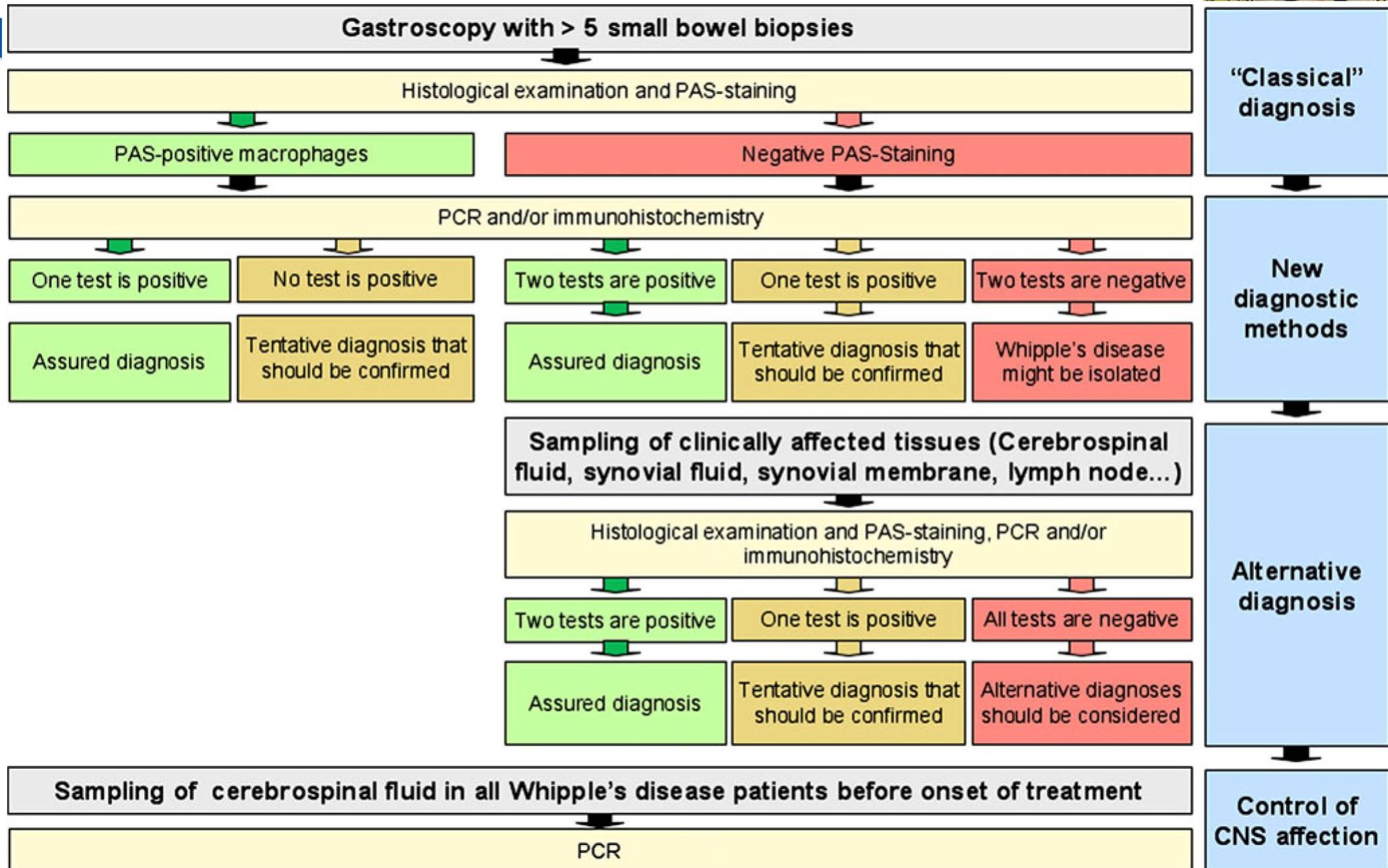
Klinische Leitsymptome

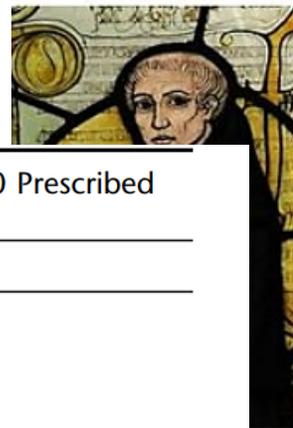
Gewichtsverlust	90
Arthropathie	80
Diarrhoe	75
Abdominelle Schmerzen	60

Häufigere Symptome

Fieber	50
Lymphadenopathie	45
Hyperpigmentation	35
Hypotonie	30–60
Periphere Ödeme	35
Herzgeräusche	35
Okkultes Blut	25
Myalgie	25
Abdominelle Raumforderung	15
Chronischer Husten	20
Splenomegalie	15
Hepatomegalie	15
Aszites	10

Chronische M. Whipple





(Chronische) Diarrhoe & Arthralgien – 1 gemeinsame Ursache

Medikamente

- Bei NSAR: 3-9% Pat. entwickeln Diarrhoe¹
- Anti-IL 17: Diarrhoe in ca. 2.5%²
- ...de novo IBD³

TABLE 5. Diarrhea as a Side Effect in the Top 100 Prescribed Medications in the United States 2012

Drug Name	
Levothyroxine*†	
Lisinopril‡	
Simvastatin§	
Azithromycin	
Esomeprazole¶	
Atorvastatin§	
Ibuprofen§¶	
Metoprolol Tartarate‡	
Duloxetine¶	
Pravastatin Sodium¶	
Amoxicillin¶	
Omeprazole¶	
Sertraline HCl¶	
Valsartan¶	
Alprazolam	
Metformin HCl§	
Fluconazole	
Lorazepam	
Meloxicam§¶	
Clonazepam	
Furosemide	
Clopidogrel	
Fluoxetine HCl¶	
Citalopram¶	
Escitalopram oxalate¶	
Celecoxib§¶	
Atenolol‡	
Carvedilol‡	
Venlafaxine¶	
Sitagliptin	
Naproxen§¶	

Derived from Pharmacy Times 2013.¹
 *Motility.
 †Steatorrhea.
 ‡Osmotic.
 §Secretory.
 || Unknown pathogenesis.
 ¶Inflammatory.

1. Phillip NA, J Clin Gastro. 2017

2. Caron B, Exp Op Drug. Saf 2021

3. Fauny M, Ann Rheum Dis. 2020

Diarrhoe und Arthralgien:

Active Listening is important for all areas of your life.

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"You're the first guy I've met who really listens and blah, blah, blah..."

search ID: becn97

- **Diverticulosis**
Diverticulosis is a condition of the co
- **Bursitis (pre-patellar)**
Prepatellar bursitis, a swelling of the
- **Knee meniscus tear**
A meniscus tear, damage to a piece
- **Shigellosis**
Shigellosis is irritation of the stomac
- **Stool holding (encopresis)**
Young children with encopresis soil
- **Stress fractures**
Stress fractures are small breaks th
- **Rheumatic fever**
Rheumatic fever is an inflammatory
- **Rheumatoid arthritis**
Rheumatoid arthritis is an autoimmu
- **Rotavirus**
Rotavirus is an inflammation of the s
- **Salmonella**
Salmonella are a type of bacteria th
- **Lyme disease**
Lyme disease is a bacterial infection
- **Juvenile rheumatoid arthritis**
Juvenile rheumatoid arthritis or JRA
- **Cystic fibrosis**
Cystic fibrosis is an inherited diseas
- **Gout**

- **ACL knee injury**
An ACL injury happens when you tear or ov
 - **Antibiotic-associated diarrhea**
Antibiotic-associated diarrhea is frequent, w
 - **Celiac disease**
Celiac disease, which is an intestinal reactio
 - **Patellofemoral pain syndrome**
Many people with pain around the kneecap
 - **Colon cancer**
Colon cancer is often asymptomatic, but it c
 - **Henoch-schonlein purpura**
Henoch-Schonlein purpura is a condition th
 - **Mesenteric lymphadenitis**
Mesenteric lymphadenitis is an inflammation more.
 - **Typhoid fever**
Typhoid fever is a life-threatening illness and weakness.
 - **Posterior cruciate ligament (PCL) injury**
A posterior cruciate ligament injury causes p
 - **Ricin poisoning**
Ricin is a dangerous poison in castor beans
 - **Toxic shock syndrome**
Toxic shock syndrome
 - **Radiation sickness**
Radiation sickness is c
 - **Shingles (herpes zoster)**
Shingles is a painful, blistering, skin rash typ
- **Cholera**
Cholera is a bacterial infec
 - **Carcinoid syndrome**
Carcinoid syndrome is a gr people who have carcinoid



1. Zwei häufige Symptome, die jedes für sich bereits Teil von häufigen Erkrankungen sein kann. **Paralleles Vorkommen von 2 Erkrankungen möglich (Teilweise auch Assoziation)**. Wie so oft in der Medizin: präzise Anamnese und zeitlicher Verlauf oft der Schlüssel zur diagnostischen Einordnung.
2. Potentiell wertvolle und einfache (nicht-invasive) Helfer in der Praxis: **Calprotectin; PCR-Stuhldiagnostik** (in ausgewählten Fällen), **Zöliakie-Serologie**.
3. In Anbetracht **Assoziation rheumatologischer Erkrankungen** und IBD, Ischämie, Vaskulitis bzw. fortgeschrittenem Alter (Colon-CA): **niederschwellige Indikation zur endoskopischen Abklärung**