L'endométriose en 2025 : une prise en charge transversale

Congrès de diététique et de Support Nutritionnel H.U.B.
15 mars 2025 - 26 ° Edition

Pauline VAN OUYTSEL, RD, MSc.
Diététicienne agréée

H.U.B
HÔPITAL UNIVERSITAIRE DE BRUXELLES
ACADEMISCH ZIEKENHUIS BRUSSEL

INSTITUT JULES BORDET INSTITUUT
Hôpital Erasme | ULB
Hôpital Universitaire des Enfants Reine Fabiola
Universitair Kinderziekenhuis Koningin Fabiola

Sommaire

01

ALIMENTATION & ENDOMÉTRIOSE : GÉNÉRALITÉS

H.U.B

Endometriosis is a chronic gynecological disease characterized by the presence of endometrial tissue outside the uterus resulting in inflammatory reactions

- associated with a range symptoms (namely **chronic pelvic pain)**
  - Symptoms can substantially compromise quality of life

Dietary interventions in endometriosis, what is known?

Reproductive Sciences
https://doi.org/10.1007/s43032-024-01701-w

ENDOMETRIOSIS: REVIEW

Effect of Dietary Interventions on Endometriosis: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

Jéssica Kleinkauff Meneghetti[1] · Mirela Tschiedel Pedrotti[2] · Isabel Meneghetti Coimbra[2] · João Sabino Lahorgue da Cunha-Filho[1,2,3]

Received: 11 December 2023 / Accepted: 16 September 2024

→Meta-analysis (2024): 11 studies

Table 1 (continued)

Authors (year)	Country	PSI	Intervention (*n*)	Control (*n*)	Follow up	Stage Endometriosis (rASRM)	Clinical Outcomes		
							Pelvic Pain	Dysmenorrhea	Dyspareunia
Sesti et al. (2007) [28]	ITALY	no	Dietary therapy (vitamins B6, A, C, E), minerals (Ca, Mg, Se, Zn, Fe), probiótics and fish oil (35)	Placebo (110)	48 Weeks	III, IV	Intervention: (8.5 ± 0.8–4.7 ± 1.1) Control: (8.0 ± 1.4–6.2 ± 0.9) ($p < 0.001$)	Intervention: (8.1 ± 1.1–6.4 ± 1.0) Control: (7.9 ± 1.2–6.4 ± 1.3) ($p < 0.001$)	Intervention: (7.2 ± 1.2–5.0 ± 1.1) Control: (6.8 ± 1.2–4.8 ± 1.2) ($p < 0.001$)
Mehdizadehkashi et al. (2021) [19]	IRAN	no	Vitamin D (50.000IU/week) each 2 weeks (30)	Placebo (30)	12 Weeks	NR	NR	Intervention: (8.0 ± 1.8–4.8 ± 1.7) Control: (6.8 ± 2.6– 4.9 ± 2.8) ($p = 0.03$)	Intervention: (6.1 ± 2.6–3.8 ± 2.3) Control: (7.3 ± 2.5–5.2 ± 2.6) ($p = 0.38$)

NR = Not reported; rASRM = revised American Society for Reproductive Medicine; RTC = Randomized Trial Clinical; GnRH = gonadotrophin-releasing hormone; VAS = visual analogue scale; PSI = post-surgical intervention.*results were reported as VAS medians

Table 1 Characteristics of the randomized clinical trials included in the systematic review

Authors (year)	Country	PSI	Intervention (*n*)	Control (*n*)	Follow up	Stage Endometriosis (rASRM)	Clinical Outcomes		
							Pelvic Pain	Dysmenorrhea	Dyspareunia
Almassinokiani et al. (2016) [21]	Iran	no	Vit D 50 000 IU/ dia(19)	Placebo (20)	12 weeks	I, II, III, IV	Intervention: (4.05 ± 3.45–0.84 ± 1.74) Control: (4.82 ± 4.1–0.68 ± 1.70) ($p = 0.24$)	Intervention: (7.37 ± 2.61–2.10 ± 2.33) Control: (6.42 ± 3.04–2.73 ± 2.84) ($p = 0.45$)	NR
Amini et al. (2021) [23]	Iran	no	Vit C (1000 mg/day and Vit E (800 IU/day) (30)	Placebo (30)	8 weeks	I, II, III	Intervention: (26.66 ± 27.84–12.13 ± 13.28) Control: (16.96 ± 16.28–18.63 ± 18.35) ($p < 0.001$)	Intervention: (50.53 ± 32.12–17,56 ± 16.65) Control: (51.00 ± 34.21–31.56 ± 26.39) ($p < 0.001$)	Intervention: (26.66 ± 28.27–15.43 ± 18.47) Control: (20.73 ± 21.77–18.10 ± 19.93) ($p < 0.001$)
Amirsalari et al. (2021) [25]	Iran	no	Garlic Tablets (400 mg) (64)	Placebo tablets (67)	20 weeks	I, II, III, IV	Intervention: (7.15 ± 1.58–2.33 ± 1.73) Control: (7.03 ± 1.59–7.26 ± 1.75) ($p < 0.001$)	Intervention: (6.71 ± 1.55–1.90 ± 1.76) Control: (6.35 ± 1.65–6.61 ± 1.80) ($p < 0.001$)	Intervention: (6.13 ± 1.41–1.46 ± 1.32) Control: (6.43 ± 1.89–6.71 ± 2.07) ($p < 0.001$)
Cobellis et al. (2011) [26]	Italy	no	N-Palmitoylethanolamine–trans-polydatin (400 mg + 40 mg twice a day) (21)	Placebo (20) or Celecoxib (200 mg twice a day for 7 consecutive days) (20)	12 weeks	I, II	Intervention*: Decrease pain from 7.5 to 2.2, Placebo from 7.2 to 4.8, and Celecoxib decreased from 7.8 to 1.5. ($p < 0.001$)	Intervention: Decrease from 7.8 to 3. Placebo decreased from 7.7 to 5, and Celecoxib decreased from 7.9 to 2.3. ($p < 0.001$)	Intervention: drop from 7.2 to 2.3, Placebo from 7.1 to 3.8and Celecoxib reduced from 7.1 to 2. ($p < 0.001$)
Giannini et al. (2015) [27]	Italy	yes (pre and post)	Wobenzym Vital (70 mg bromelin, 144 mg trypsin, 197 mg papain and 9 mg quimotripsin) (15)	Placebo (15)	12–16 Weeks	I, II	Intervention after surgery reduced pain from almost 4 to 3.3 ($p < 0.05$). Placebo did not reduce (3.2 to 3.3). Moreover, treatment with Wobenzym Vital was associated with lower VAS after surgery from 3.2 to less than 1 ($p < 0.05$). Placebo also reduced pain from almost 4 to 1 only after surgery ($p < 0.05$).	NR	NR
Kohama et al. (2007) [20]	Japan	no	Pycnogenol 60 mg/day (32)	GnRH-a: leuprorelin acetate, 3.75 mg, 6 times every 4 weeks (26)	48 Weeks	II, III, IV	Intervention: (3.2 ± 0.72–2.1 ± 0.63) Control: (3.1 ± 0.74–2.5 ± 0.89) ($p < 0.05$)	Intervention: (3.3 ± 0.75–2.2 ± 0.59) Control: (3.0 ± 0.72- 2.3 ± 0.66) ($p < 0.05$)	NR
Mendes et al. (2017) [29]	Brazil	no	Levonorgestrel 0.15 mg/ethinyl estradiol 0.03 mg) + Resveratrol 40 mg/day (22)	Levonorgestrel 0.15 mg/ethinyl estradiol 0.03 mg) + Placebo (22)	6 weeks	NR	Intervention: Median 5.7(4.8 to 6.6)-3.2 (2.1 to 4.3). Control: Median 5.4 (4.2 to 6.6) -3.9 (2.2 to 5) ($p = 0.70$)	NR	NR
Nodler et al. (2020) [22]	USA	no	Fish oil 1000 mg (20) 2.000 IU of vitamin D3 (27)	Placebo (22)	24 weeks	I, II, IV	Intervention: Vit D: Mean (7.0 to 5.5, $p = 0.02$) Fish oil: Mean (5.9 to 5.2) ($p = 0.39$) Control: (6.0 to 4.4) ($p = 0.07$)	NR	NR
Santanam et al. (2013) [24]	USA	no	Vitamin E (1200 IU) and Vitamin C (1 g) (46)	Placebo (13)	8 Weeks	I, II, III, IV	Intervention: decreased pain (43%) Control: decreased pain (0%) ($p = 0.005$)	Intervention: decreased pain (37%) Control: decreased pain (36%) ($p = 0.2723$)	Intervention: decreased pain (24%) Control: decreased pain (0%) ($p = 0.0957$)

Dietary interventions in endometriosis, what is known? (1/2)

- Nutrition : recognized as a crucial factor in the disease process of endometriosis but only very few studies provide evidence-based dietary recommendations

- Generally, clinical interest related to inflammation and oxidative stress :
  - ✓ High-fiber diet rich in fruits and vegetables
  - ✓ Reduced sugar
  - ✓ Reduced animal products
  - ✓ Reducing dietary fat, but rich in omega-3 unsaturated fatty acids
  - ✓ Plant-based diets
  - ✓ Antioxidant : vitamins C, E, A
  - ✓ Selenium & zinc
  - ✓ Vitamin D serum

Dietary interventions in endometriosis, what is known? (2/2)

- **Only dysmenorrhea can be reduced** with supplementation in endometriosis, while pelvic pain and dyspareunia do not.

  !!! However :

  - Few studies
  - Poor quality of the included studies
  - High heterogeneity
  - Moderate/high risk of bias

- More randomized clinical trials are needed to accurately determine dietary intervention's short- and long-term efficacy and safety

➔ **There is insufficient evidence to support a superior diet for management of endometriosis**

Nonetheless ...

- **Healthy**, **balanced**, **personalized** approach to diet may offer valuable insight :
  → Role of the diet **on symptoms improvement** in the management of endometriosis

- **Mediteranean diet** support the best benefit whithout nutrition concerns

- Evidence support **body-mind practices** such as yoga, benefits of holistic combination of several types of exercices

02

SYMPTÔMES DIGESTIFS ASSOCIÉS À L'ENDOMÉTRIOSE : LE CONCEPT « ENDO BELLY »

Nonspecific complaints that can cause confusion

→ Includes unspecific intestinal complaints : cyclic diarrhea, cyclic abdominal bloating, but also constipation, nausea, vomiting, and stomach complaints

- Endometriosis patients exhibit **alterations in the enteric nervous system**, resulting in severe intestinal complaints and increased visceral sensitivity
- Gastrointestinal symptoms of endometriosis overlap with "Irritable Bowel Syndrome (IBS)" : it may also involve to this secondary diagnoses
- However, early identification and treatment of endometriosis is crucial to prevent central sensitization mechanisms, which can lead to overlapping pain syndromes later in the course of the disease

Irritable Bowel Syndrome (IBS)

- Disorders of gut–brain interaction (DGBI)
- Recurrent abdominal pain associated with a change in bowel frequency and/or consistency – Rome IV criteria
- Frequent : affects 4.1 to 25% of the population worldwide
- Physiopathology : multifactorial, including modifications in intestinal microbiota and visceral hypersensitivity
- Treatment = integrated approach, includes dietary modifications

→ Diagnosis to be assessed by a gastroenterologist !

The Endo Belly concept

Journal of *Clinical Medicine*

MDPI

Review

Endo Belly: What Is It and Why Does It Happen?—A Narrative Review

Renata Voltolini Velho, Franziska Werner and Sylvia Mechsner *

- Alterations in the enteric nervous system
- Dysbiosis from the intestinal microbiota > proinflammatory cytokines + altered immune cell function
- Altered estrobolome > systemic inflammatory processes

→ The combination of all these processes results in the “Endo belly”

The Endo Belly concept

Figure 1. Photos (**a**,**b**) show two patients with pronounced endo belly, which usually occurs in the second half of the cycle.

= cyclic bloating of the abdomen, during the second half of the menstrual cycle leading up to menstruation

The abdomen becomes increasingly bloated : discomfort & pain

→ elevated sensitivity of the intestinal wall : reduced pain threshold

Endo Belly vs. IBS

- Women with endometriosis are more likely to be diagnosed with IBS than women without (OR=2.97; $CI_{95\%}$ [2.17–4.06])
- Prevalence rates of IBS in women with endometriosis is 23.4% ($CI_{95\%}$ [9.7–37.2])
- IBS can be a comorbidity with endometriosis and influences the endo belly, but it is not the cause !!!

It is important to differentiate between the two conditions : management and treatment can be different

	Endo Belly	IBS
Underlying condition	Linked to the **menstrual cycle** (presence of endometrial tissue in the pelvic area)	Not related to the menstrual cycle ; characterized by **digestive symptoms** (abdominal pain + changes in bowel habits, and bloating)
Triggers	Worsens around the time of menstruation (hormonal changes during **cycle**)	Various triggers : **foods**, **stress**, and **gut motility** issues Not cyclic
Diagnosis criteria	Involves the diagnosis of **endometriosis itself**	Rely on specific **Rome IV criteria**

→ A specific diet for endo belly cannot be recommended due to insufficient data

03

PRISE EN CHARGE DIÉTÉTIQUE DES PATIENTES

H.U.B

There is insufficient evidence to support a superior diet for management of endometriosis

BUT …

… diet may contribute to an **improvement** of **endometriosis-associated symptoms**

- Lifestyle habits (NICE Guidelines)
  - Mediterranean Diet (MD)
  - Low FODMAPs Diet (LFD)

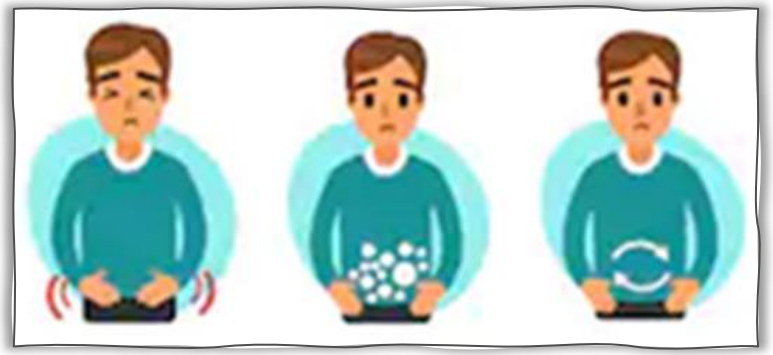
Lifestyle habits (NICE Guidelines)

Prendre ses repas à heures régulières

Activité physique : 30 minutes/j

Boire : min. 8 verres d'eau plate/j (= 1.5 à 2 litres/j)

Prendre le temps de manger, bien mastiquer



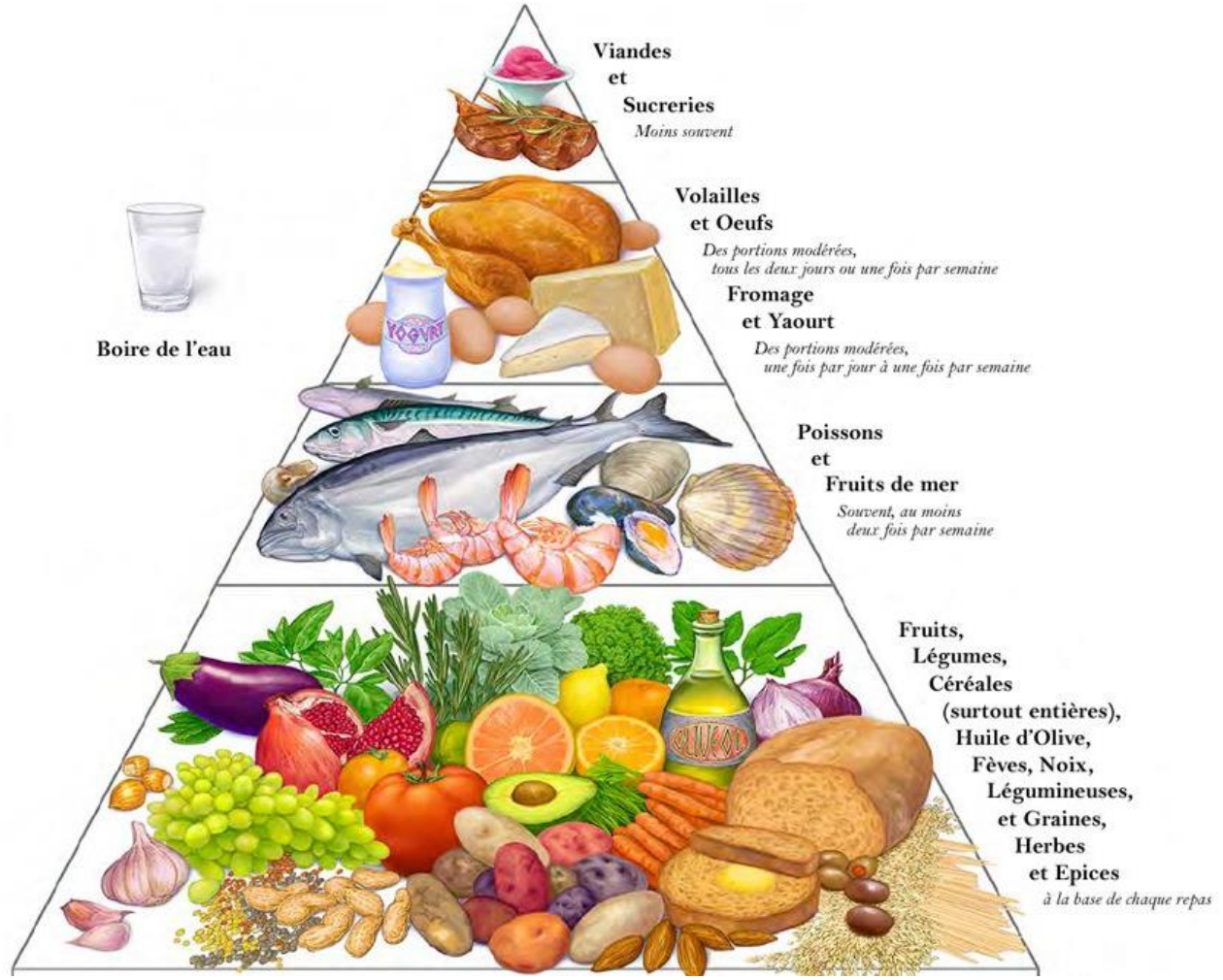
Gestion du stress / relaxation

Limiter thé et café : max. 3 tasses/j

Consommer quotidiennement un peu de légumes (type et quantité selon tolérance), fruits et céréales à base d'avoine

NICE Guidelines
(last updated 04/04/2017)

Mediterranean Diet (MD)



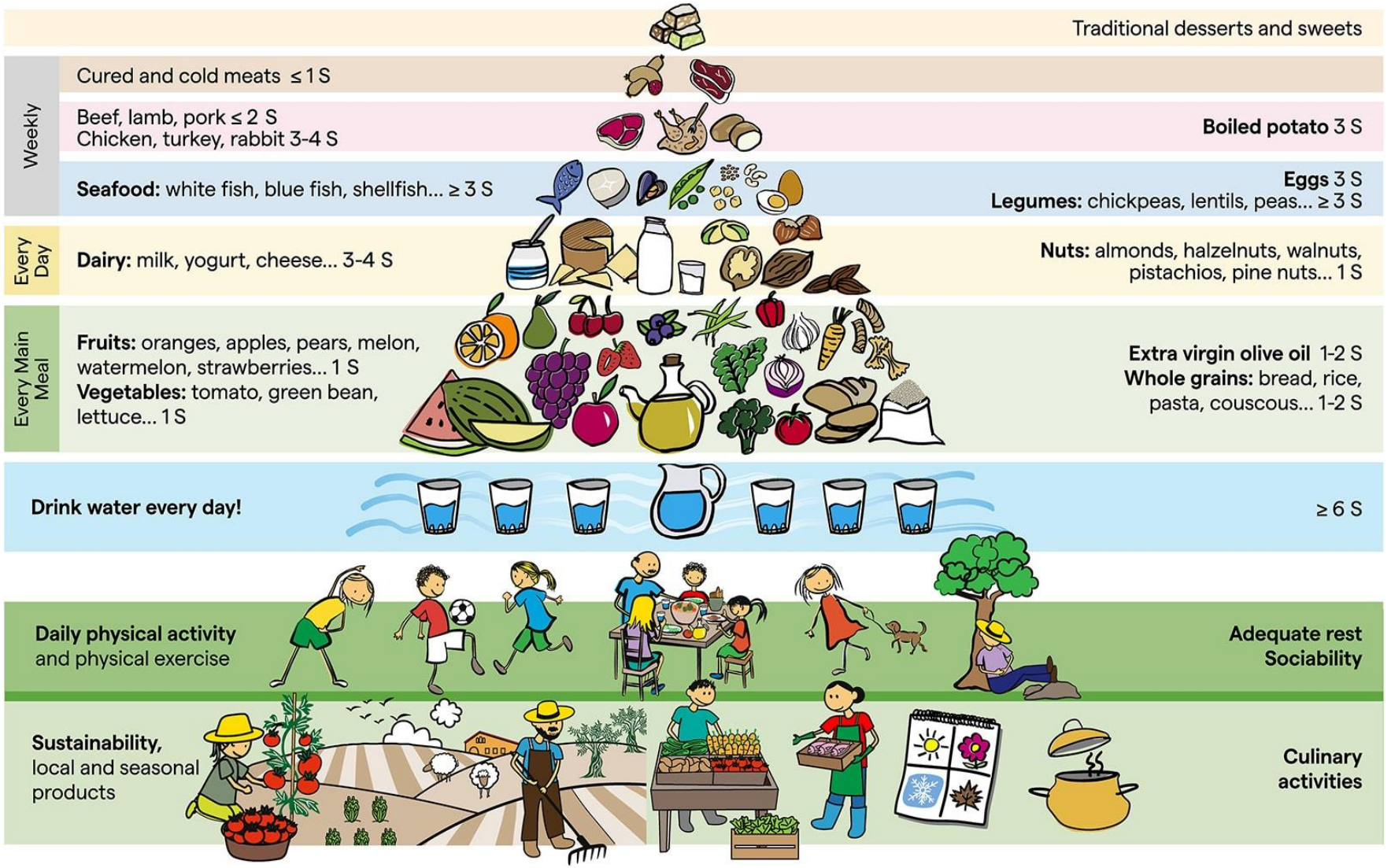
Characterized by :

- ✓ a high intake of **vegetables and legumes,**
- ✓ **2-3 fruits per day**
- ✓ **Olive oil and nuts 2 times/d**,
- ✓ Preferably **whole grains**,
- ✓ Low fat **dairy products** (yoghurt)
- ✓ Preferably **fish, seafood** and **poultry** and a **low intake of red meat** and especially **processed meat**

→ Balanced and healthy diet

→ Rich in fiber, omega-3, antioxidant, vitamins and minerals

Mediterranean Diet (MD)



Ce nouveau modèle met aussi l'emphase sur :

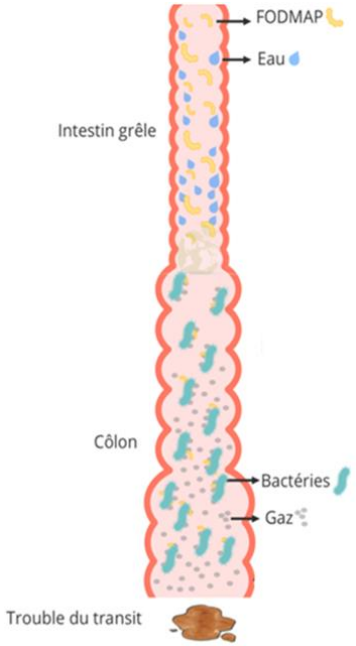
- l'activité physique et l'exercice physique
- un repos suffisant
- la sociabilité

Low FODMAPs Diet (LFD)

Fermentable Oligo-Di-Mono-saccharides And Polyols (FODMAP)

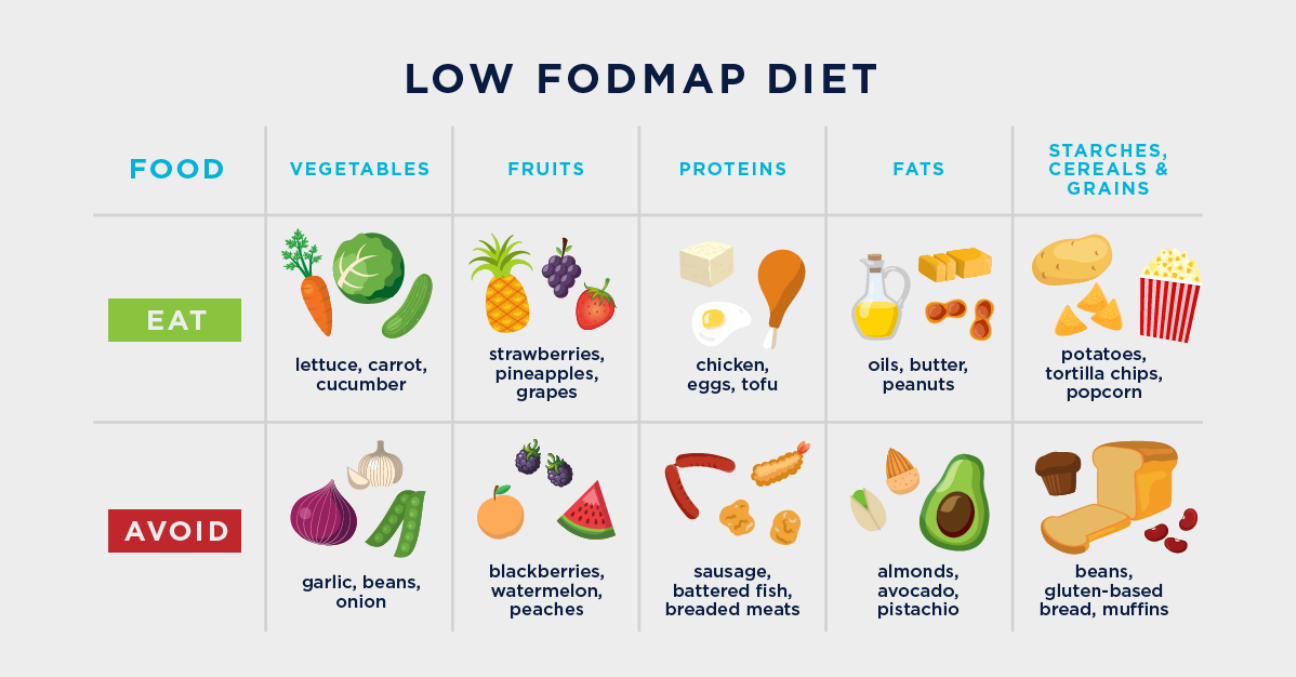
= Short-chain fermentable carbohydrates : fructose, lactose, fructans (FOS), galactans (GOS), polyols

Concept : poorly absorbed CHO → osmotic effect + fermentable → colon distension & altered motility → trigger IBS symptoms : abdominal pain, bloating, bowel disorders (diarrhoea/constipation)



Low FODMAPs Diet (LFD)

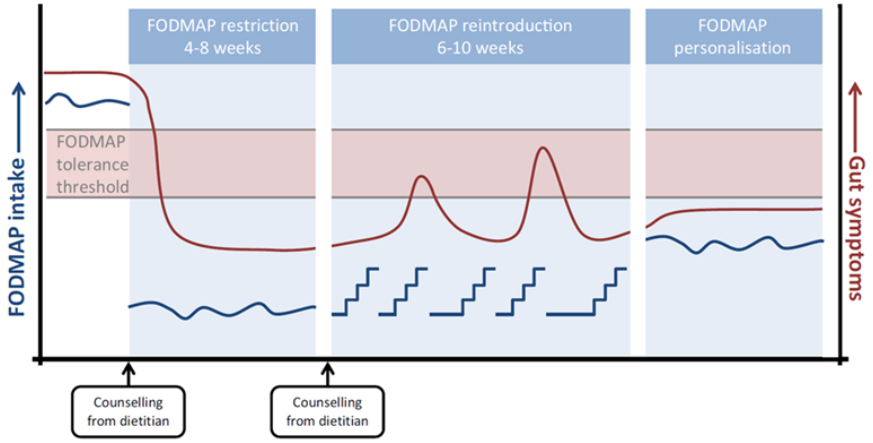
= Reduce intakes of high FODMAP food (garlic, onions, legumes, wheat, apple, milk, avocado, mango,…)



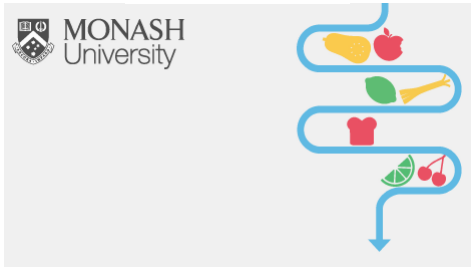
✓ Demonstrated efficacy in reducing digestive symptoms in IBS

✓ Risks : not applicable in every situations !! (specifics needs or TCA)

Low FODMAPs Diet (LFD)



(Whelan K. et al, 2018)



1. Low FODMAP Diet

For 2-6 weeks - swap high FODMAP foods for low FODMAP alternatives.

All food groups and nutrients are included.

2. FODMAP Reintroduction

Over 8-12 weeks reintroduce:

- one FODMAP at a time
- one food at a time
- over 3 days

Increase serving size each day and monitor tolerance.

3. FODMAP Personalization

Eventually people will know what they can tolerate and what they cannot.

In the long-term it's a balance between tolerated FODMAP-rich foods and the avoidance of others.

Low FODMAPs Diet (LFD)

FODMAPs for endometriosis: A new target

Given :

- Overlapping symptoms between endometriosis and IBS,
- High rates of IBS in endometriosis,
- and the common pathophysiological factors driving the two conditions

→ a low- FODMAP diet may yield similar improvements in this population…

Table 2 New applications of the FODMAP diet—ideal candidates and key considerations

Population	Ideal candidates	Key considerations
Inflammatory bowel disease	• Patients with quiescent IBD and persistent functional gut symptoms (e.g. bloating, wind, abdominal pain)	• Patients with IBD are susceptible to disordered eating practices and restrictive eating behavior is common in this population • A limited trial of a FODMAP gentle diet can be considered, but dietetic guidance is recommended, and patients should be monitored for symptom response and impacts on food-related quality of life
Older adults	• Aged-care residents who have been fully investigated for any non-functional causes of diarrhea • Those in whom a thorough medication review has been conducted to determine whether digestive symptoms such as diarrhea are not due to medications or laxative use[5] • Residents living in an aged-care facility where the kitchen staff are able to accommodate dietary changes	• Older adults have higher dietary protein and calcium requirements than younger adults, so careful consideration is needed when advising changes to lactose-containing products[41] • Older adults prefer verbal communication • A FODMAP-gentle approach may be easier to implement in an aged-care setting as meals are made in bulk • Focus should be on substitution of high-FODMAP foods to low-FODMAP foods rather than elimination of food • Good communication and detailed instructions are needed with the resident, care staff, GP, and kitchen staff for dietary changes to be implemented correctly
Endometriosis	• Patients with endometriosis and co-existing functional GI symptoms (e.g., abdominal pain, bloating, excessive wind, altered bowel habits). These symptoms may or may not meet Rome criteria for IBS.	• Active screening for IBS in women with endometriosis and endometriosis with IBS is recommended (Table 4[9]) • A limited trial of a three-phase FODMAP diet can be considered, but given limited evidence for efficacy, patients should be supervised by a dietitian • Symptom response before and after each phase of the diet should be monitored using a validated tool such as the VAS-IBS[42]

GI, gastrointestinal; GP, general practitioner; IBD, inflammatory bowel disease; IBS, irritable bowel syndrome.

O'Brien L, Kasti A, Halmos EP, Tuck C, Varney J. Evolution, adaptation, and new applications of the FODMAP diet. JGH Open. 2024 May 20;8(5):e13066. doi: 10.1002/jgh3.13066. PMID: 38770353; PMCID: PMC11103764.

Low FODMAPs Diet (LFD)

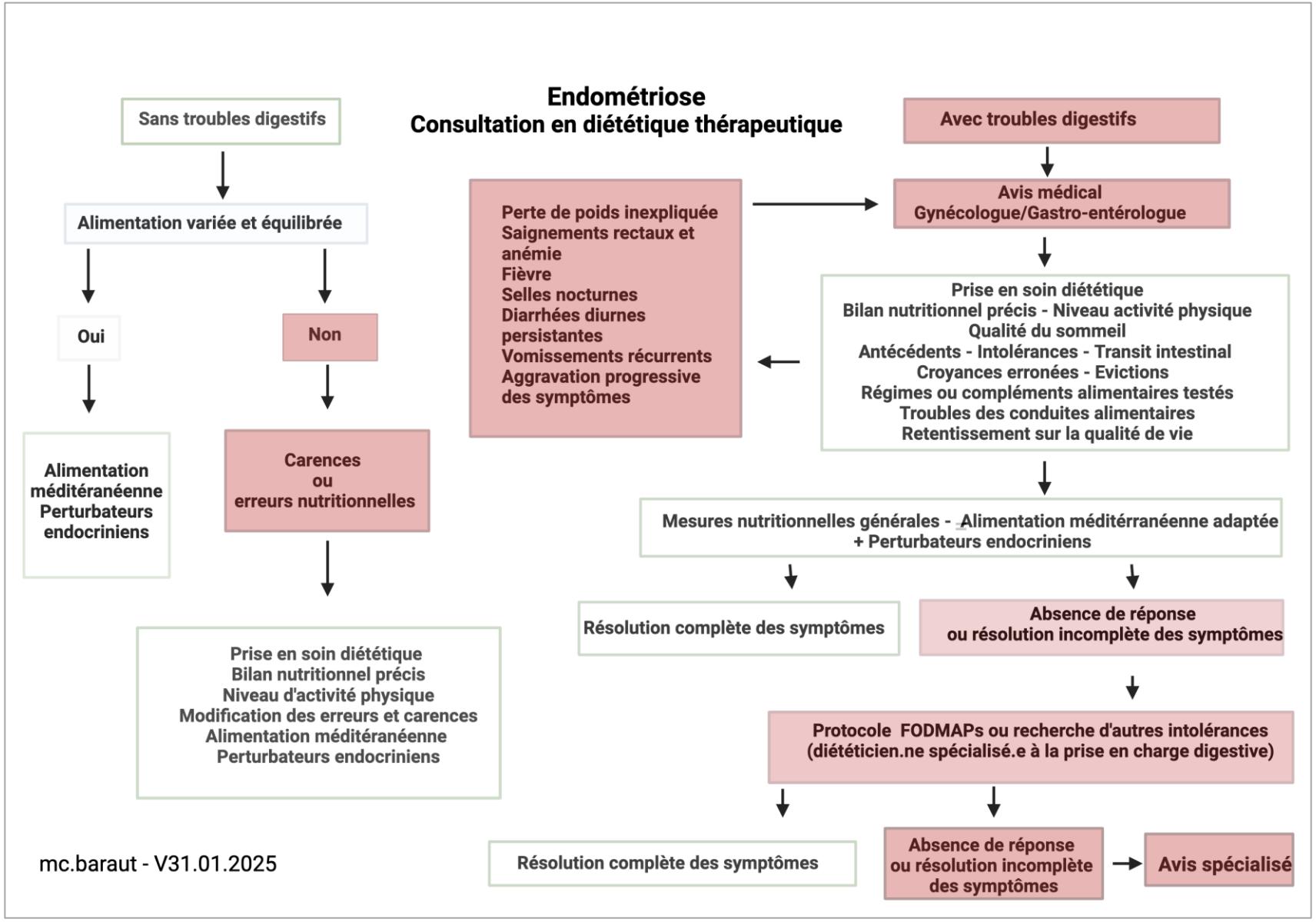
2 studies have investigated the effect of a low-FODMAP diet for endometriosis

→ There is a lack of evidence a low-FODMAP diet for endometriosis , which contrasts the strong evidence base for IBS !

*"In summary, patients with **endometriosis frequently present with GI symptoms** and many meet the Rome IV criteria for IBS. **This overlap highlights the need for clinicians to actively screen for GI symptoms in women with endometriosis**, and endometriosis in patients with IBS. In patients with diagnosed endometriosis, a **dietary approach can be considered, keeping in mind that the quality of evidence supporting any given dietary approach is generally poor** and further high-quality research is required. Nonetheless, **a low-FODMAP diet does show promise, and in patients with accompanying GI symptoms with or without an IBS diagnosis**, a limited trial of a three-phase FODMAP diet can be considered, under dietetic guidance."*

→ Screen GI symptoms in women with endometriosis !
→ Low FODMAP Diet can help, even thought poor evidences for now

Prise en charge diététique des patientes (1/2)



Prise en charge diététique des patientes (2/2)

- **Dépister les risques nutritionnels** :
  - Carences / équilibre nutritionnel
  - TCA
  - Fausses-croyances (ex: « régime anti-inflammatoire », etc.),
  - Évictions injustifiées (ex: régime sans gluten, sans produits laitiers, etc.)

- **Alimentation de méditerranéenne** :
  - ➢ Concilie qualité nutritionnelle (micronut., fibres, AGMI) + qualité organoleptique + hygiène de vie favorable
  - ➢ Réduction des marqueurs inflammatoires : démontré
  - ➢ Aucun risque
  - ➢ **À adapter !!!**
    - → **Ne pas préconiser la consommation de glucides fermentescibles en cas de symptômes digestifs associés !**

- **Régime pauvre en FODMAPs**
  - TOUJOURS associé aux conseils hygiéno-diététiques (**NICE**) : mesures générales (stress, équilibre, structure, facteurs déclencheur, caféine, etc.)
  - **Ciblé** et **adapté** > types d'intolérance & selon sévérité des symptomes GI associés
  - **Encadré** par un diététicien formé et spécialisé

04

TAKE HOME MESSAGES

TAKE HOME MESSAGES

- Nutrition = crucial factor in the disease process of endometriosis… but only very few studies provide evidence-based dietary recommendations

- This lack of evidence is reflected in clinical guidelines :
  - ✓ **Healthy, balanced, personalized** approach to diet may offer valuable insight
  - ✓ Clinical interest related to inflammation and oxidative stress
    - → **Adapted mediterranean diet**
  - ✓ **Role** of the diet on **symptoms improvement** in the management of endometriosis
  - ✓ There is insufficient evidence to support a superior diet for management of endometriosis

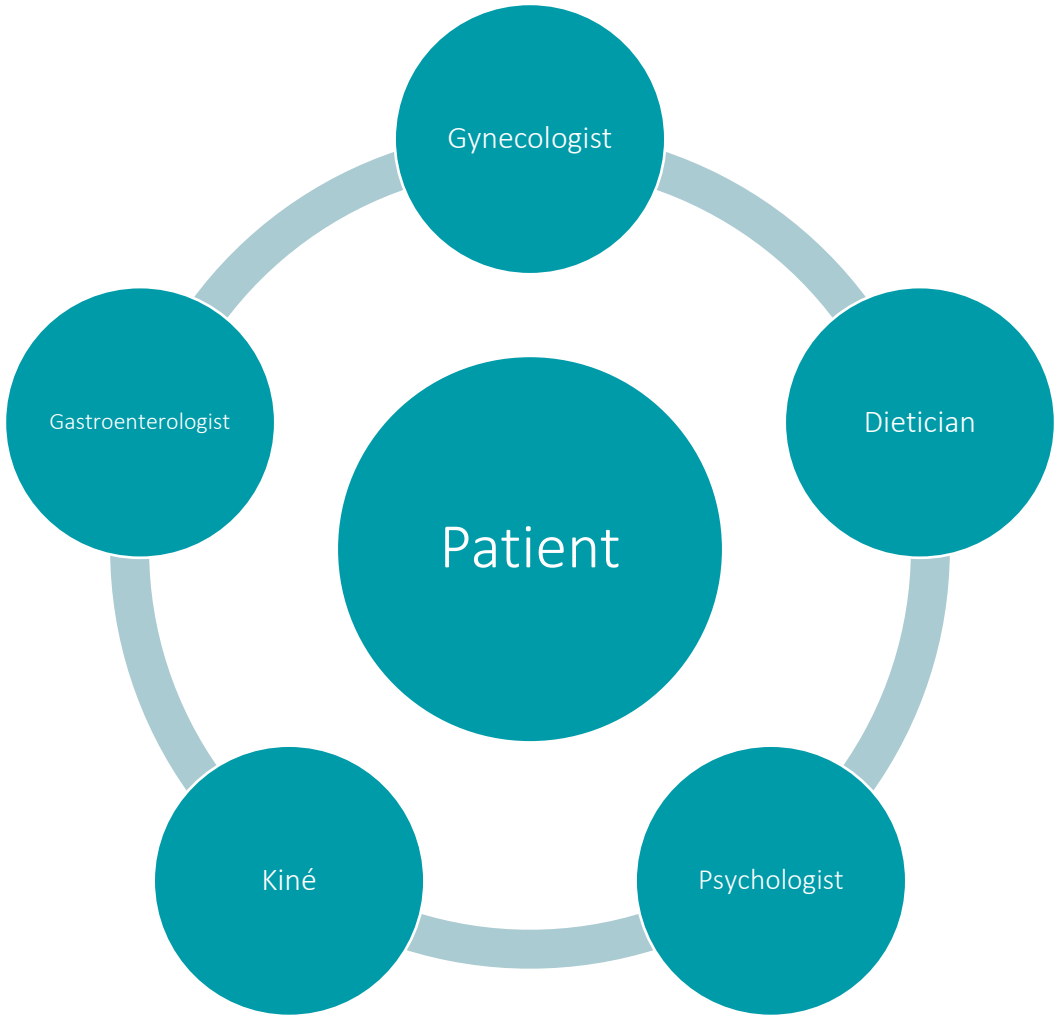
TAKE HOME MESSAGES

- **Screen GI symptoms** in women with endometriosis :
  - ✓ Diet may contribute to an improvement of endometriosis-associated symptoms
  - ✓ Overlap with numerous GI disorders, most notably IBS & Endo Belly
  - ✓ **Low FODMAP Diet can help**

- Guidelines recommend **including a dietician in** the interdisciplinary care **team** of patients with endometriosis

- Evidence support **body-mind practices**

TAKE HOME MESSAGES



KEEP CALM AND EAT FOOD