
MICR BIOTALK
by Biocodex Microbiota Institute

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# Endometriosis: understanding better to break taboos and take action

**Host** **Emilie FARGIER**

*Scientific and Medical Communication Manager at the Biocodex Microbiota Institute*

## Andrew HORNE

→ Professor of Gynaecology & Reproductive Sciences
→ Director of the Centre for Reproductive Health
→ President of the World Endometriosis Society

→ Honorary Consultant Gynaecologist at NHS Lothian
→ Trustee to Endometriosis UK
→ Specialty Advisor to the Chief Medical Officer of Scotland for Obstetrics and Gynaecology

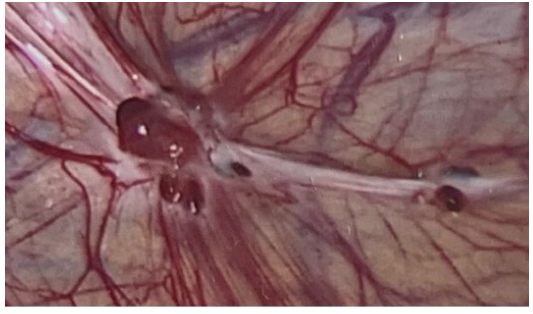
EXPPECT
THE UNIVERSITY of EDINBURGH
WORLD ENDOMETRIOSIS SOCIETY
leading the way in endometriosis

# What is endometriosis?

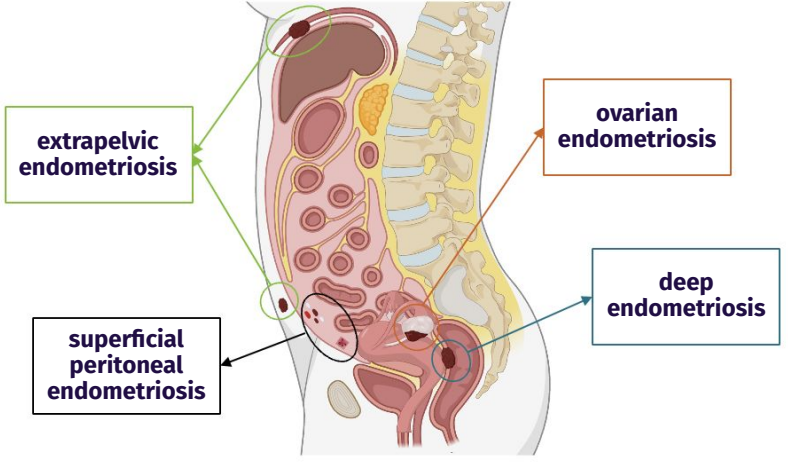
EXPPECT

**190 million**

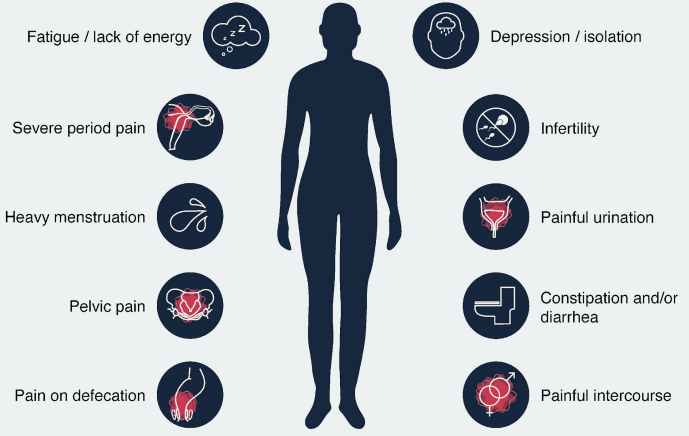
**women affected worldwide**



**Tissue like the lining of the womb grows elsewhere in the body**



# Symptoms and association with other conditions




- → Adenomyosis and fibroids
- → Fibromyalgia and migraine
- → IBS, Ulcerative colitis
- → Rheumatoid arthritis, SLE, MS and asthma
- → Cardiovascular disease
- → Ovarian cancer, melanoma, non-Hodgkin's lymphoma, thyroid and endometrial cancers
- → Depression and anxiety

# Diagnosing endometriosis


- Symptom history and pelvic examination
- Ultrasound or MRI can identify ovarian endometriomas or deep disease
- Laparoscopy remains gold standard (with biopsy) but no longer always required
- Emerging tests: saliva, blood, and menstrual fluid biomarkers for earlier detection

# Diagnosing endometriosis

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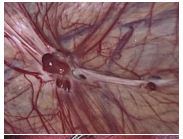
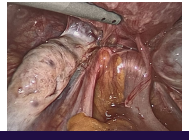
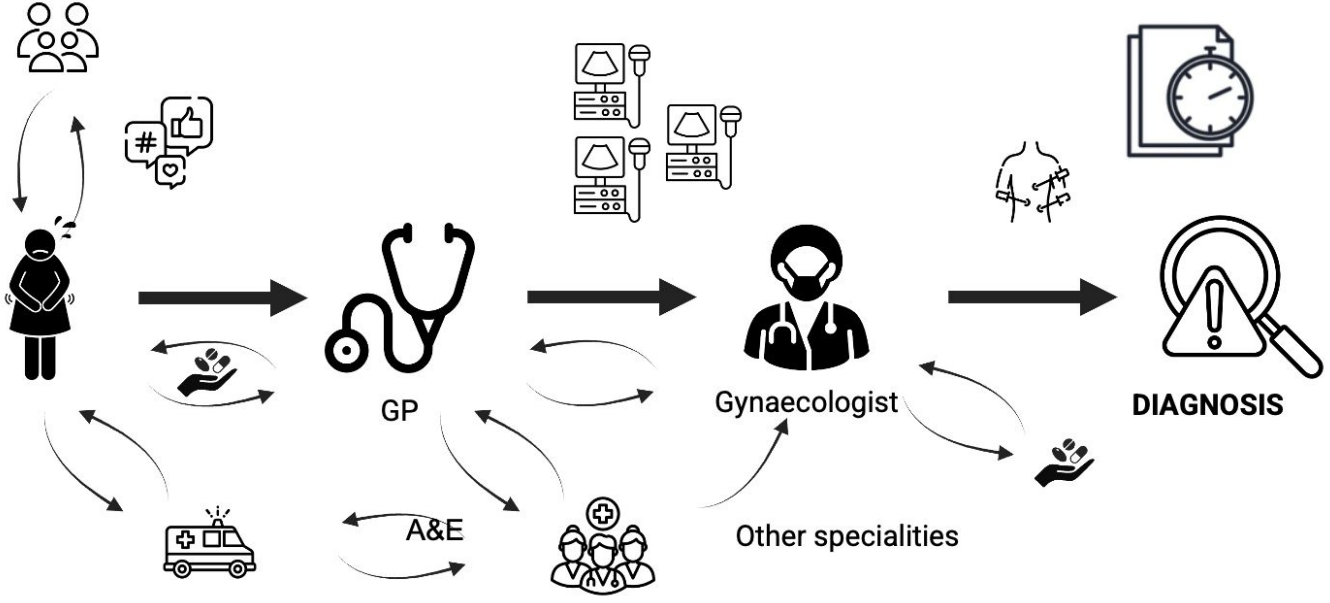


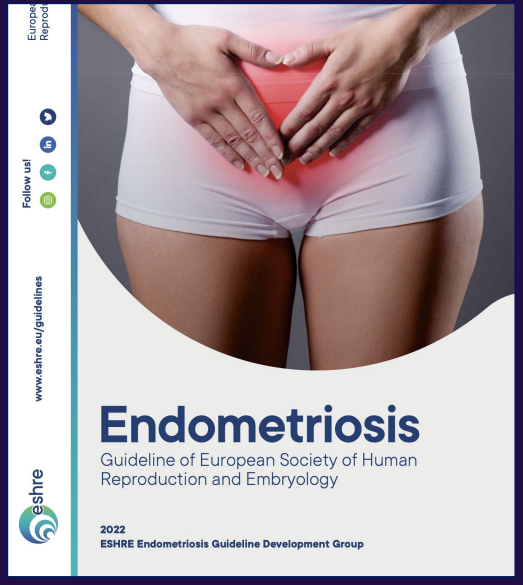


| Clinical | Radiology | Surgery | Pathology | Biomarkers |
|---|---|---|---|---|
| | ❌ | Access | | |
| | USS ✅ | Unrecognised disease | Artefact |  |
| | MRI ✅ | Microscopic disease | | |

# Diagnostic journey is often prolonged



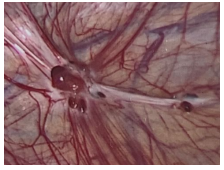
# Management options for endometriosis

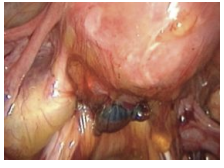


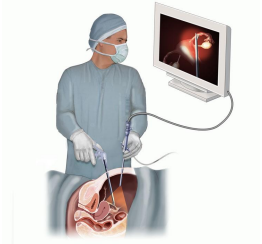

→ **Disease specific**
→ **Pain management**

- NSAIDs
- Neuromodulators
- Physiotherapy
- Psychology
- TENS machines, heat/cool packs, dietary changes

# Surgical excision/ablation for endometriosis







## Surgical risks

- 1-2 per 1000 bowel, bladder and blood vessel injuries
- Adhesions and chronic post surgical pain

## Persistent symptoms and recurrence

- 30% experience no immediate benefit
- 20% recurrence within 2 years
- 50% recurrence within 5 years

# Hormonal treatment for endometriosis

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| Treatment | Administration | Potential side-effects |
|---|---|---|
| Combined contraceptives | Oral, patch, ring | Nausea, headache |
| Progestogens | Oral, IM, SC, IUS | Weight gain, bloating, acne, unscheduled bleeding |
| GnRH agonists +/- addback HRT | Intranasal, IM, SC | Vaginal dryness, vasomotor, bone density |
| GnRH antagonists +/- addback HRT | Oral | Vaginal dryness, vasomotor, bone density |

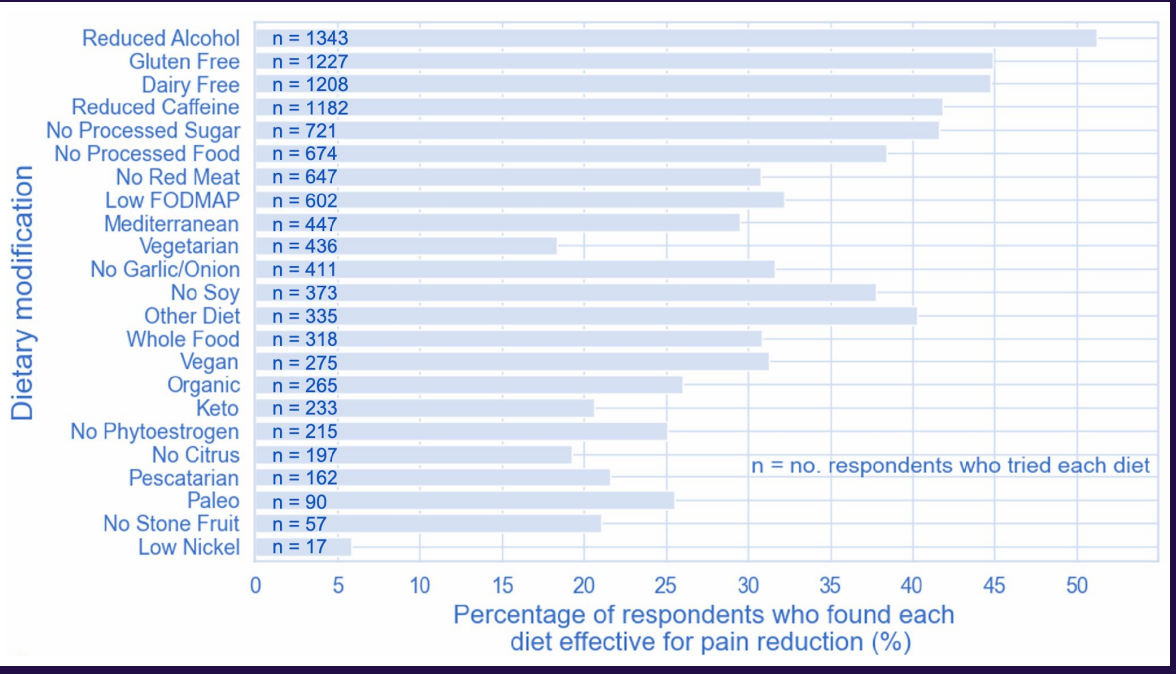
- → All approaches equally effective
- → Symptoms recur when stopped
- → Side-effects
- → Contraceptive

# National UK patient survey

*Which hormonal medication helped most?*


**Current treatment leaves 50% of patients with persistent or recurrent pain**

# Dietary intervention for endometriosis



# Gut bacteria and endometriosis:
*What animal studies show*

EXPPECT

→ Most studies use animal models of endometriosis (rodents and some primates)

→ Focus on disease development, not symptom relief

→ Results vary widely due to inconsistent research methods

→ Some promising treatments (n-butyrate, alpha-linolenic acid) but lacking measures of wellbeing or behaviour

# Gut bacteria and endometriosis:
*What human studies show*

EXPPECT

- Only a small number of human studies have looked at gut bacteria in endometriosis
- Most of these studies involve small groups of patients, which makes the results less reliable and harder to generalise
- Different studies use different methods and measures, so it is difficult to compare findings or draw clear conclusions
- A few larger studies are emerging, but even these have not shown a consistent “endometriosis microbiome” pattern yet

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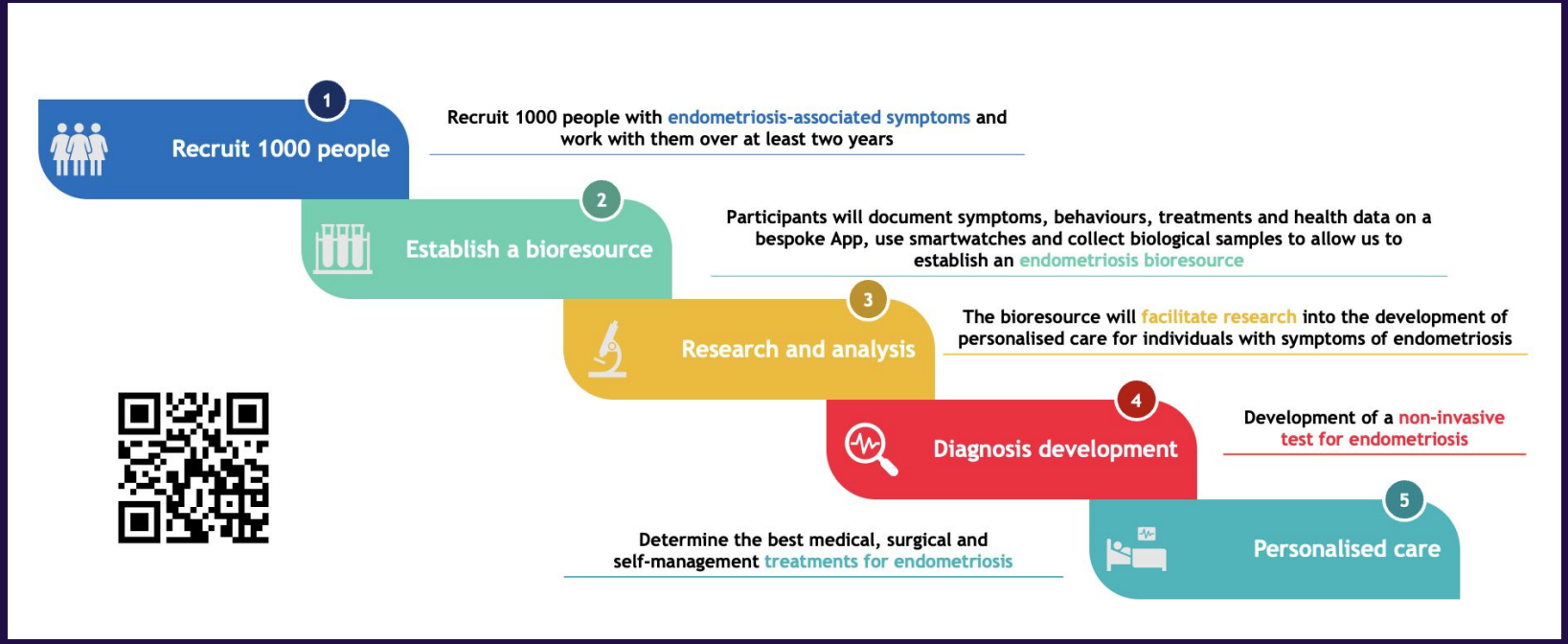
EXPPECT



# Q&A SESSION
## WITH THE EXPERT

**Expert**
Andrew HORNE

**Host**
Emilie FARGIER

THANK YOU!

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