Menstrual problems in adolescents

This article was updated in May 2025.

Menstrual problems are common in adolescence. Period pain affects 70–90% of teenagers who menstruate; 20–30% regularly miss school, social or sporting events due to their pain (BJGP 2024;74:283). Heavy bleeding is a problem for around 37% of girls, and is the most common reason for referral to secondary care gynaecologists (Journal of Pediatric and Adolescent Gynecology, 2017 30(3);335-340).

These difficulties can have a significant impact on quality of life and emotional wellbeing. When it comes to management, we clinicians may feel uncomfortable giving hormones licensed for adults to young girls. In this article, we consider the issues of heavy bleeding and period pain, and how we can help in primary care.

1. Is puberty happening at a younger age?

No (at least, there has been little change in recent decades):

- The average age of menarche is between 12y and 13y.
- The age range of menarche varies between 7y and 17y (yes, really!).
- Around 1 in 8 girls start their period at primary school (BMJ 2001;322:1095).

In the 1900s, the average age of menarche was around 16y. Improvements in health and nutrition are believed to be a reason for the reduction in menarchal age in the past century (Pediatrics. 2008 Feb;121 Suppl 3:S167-71).

2. Early menstrual years

After menarche, menstrual cycles can be quite erratic due to immaturity of the hypothalamic–pituitary–ovarian axis. For the first 2 years post-menarche, around 50% of cycles are anovulatory and may be characterised by infrequent, heavy and prolonged bleeding episodes. Ovulatory function gradually improves in subsequent years; by 5y post-menarche, 75% of cycles are ovulatory.

Anovulatory cycles are the leading cause of heavy menstrual bleeding in adolescents.

3. Heavy menstrual bleeding

In its guideline on the management of heavy menstrual bleeding, NICE does not differentiate between women of different ages (NICE 2018, NG88). However, our adolescent population may have different causes for bleeding compared with older women, and a different management approach may be more appropriate for younger girls and women. In 2020, the British Society of Paediatric and Adolescent Gynaecology (BritSPAG) produced a guideline which outlines this approach, and we summarise its recommendations here. Other references are listed where used.

Causes of abnormal uterine bleeding

Non-structural causes: MORE COMMON in ADOLESCENTS and can often be diagnosed on history alone (acronym: COIEN)	**Structural causes: MUCH LESS COMMON IN ADOLESCENTS** (acronym: PALM)
• **Coagulopathy** (an estimated 13% of women with heavy menstrual bleeding have Von Willebrand disease – look for a family history as the 2 commonest forms of Von Willebrand are autosomal dominant). • **Ovulatory disorders.** • **Iatrogenic causes** (drugs, contraception). • **Endometrial factors** (including infection). • **Not otherwise specified.**	• Polyps. • Adenomyosis. • Leiomyomas. • Malignancy/hyperplasia.

(based on International Federation of Obstetrics and Gynaecology (FIGO) classification)

4. Initial assessment of bleeding

History	Examination
May be appropriate to see alone: she is more likely to be candid about sexual activity without a parent sat next to her! • **Menstrual history:** age at menarche? Regularity of cycles? • **Sexual history**: what contraception is she on? Is she at risk of STI? • **Gynaecology history:** symptoms such as pain, dysmenorrhoea, PMS or features of PCOS? • **Medical history:** any medication? Other medical problems (obesity, thyroid disorders, symptoms of anaemia)? • **Social history**: school attendance – is bleeding affecting education and activities? **Think about coagulopathy if there is a history of:**	Not necessary in many cases. NICE (2018, NG88) says we can initiate treatment without examination or further investigation if: heavy regular menstrual bleeding and no other symptoms (because low risk of pathology) (but see note on need for FBC below!). However, BritSPAG recommends a basic examination, involving inspection for pallor, androgen excess, bruising, and abdominal palpation for masses. If there are symptoms such as: • Intermenstrual bleeding. • Postcoital bleeding, • Pelvic pain or significant dysmenorrhoea. • Pressure symptoms…… Consider: • Pelvic and speculum examination (if appropriate, and prior to fitting IUS). • STI testing (if indicated). • Arrange further investigations (if required – see below).

• Heavy bleeding since menarche. • Surgery-related bleeding (e.g. dental work). • Frequent epistaxis (≥ 1/m), gum bleeding or easy bruising. • Family history of bleeding disorder.	

5. Investigations

- FBC in everyone!
- Most heavy menstrual bleeding in adolescents needs no further investigation, but consider a coagulation screen if a bleeding disorder is suspected.

When should other tests be considered?

Ultrasound (NICE)	Heavy menstrual bleeding and: • Pelvic pain. • Significant dysmenorrhoea. • Abnormal/inconclusive examination (e.g. if the uterus is bulky or tender). **What about looking for PCOS?** No! PCOS can present with abnormal uterine bleeding, and symptoms may develop initially during adolescence.

	However, there is a significant overlap between the symptomatology of PCOS (erratic bleeding, acne, body hair growth) and puberty (ditto!). International expert consensus group recommends: • Caution about diagnosing PCOS in adolescence. • Ultrasound is NOT used to diagnose PCOS until ≥8y after menarche due to the high prevalence of multi-follicular ovaries in adolescence. • Offer treatment for individual symptoms. *(International evidence-based guideline for the assessment and management of polycystic ovary syndrome 2018). For more information on PCOS, see article in online handbook.*
Outpatient hysteroscopy (NICE)	Patients with suspected submucosal fibroids, polyps or endometrial pathology who might present with: • Persistent intermenstrual bleeding. • Persistent irregular bleeding. • Obesity/PCOS and infrequent heavy bleeding. • Treatment failure. However, structural lesions are rare in adolescents so **even if a girl has any of the symptoms above, we should treat her medically**, and only consider further investigation or gynaecological referral if treatment has failed or we have specific concerns.

6. Treatment of abnormal uterine bleeding

The mainstay of managing bleeding in adolescence is non-hormonal drug treatment and hormonal contraception.

The NICE guidelines recommend:

- First line: IUS.
- Second line: non-hormonal options and hormonal contraception.

However, we should discuss all available options to best suit our patient, acknowledging their concerns and preferences, and after assessing their capacity to consent to treatment. Ideally, management should be a joint decision between clinician, patient and parent/guardian.

BritSPAG endorses the use of the FSRH UKMEC in aiding decision-making regarding suitability of hormonal contraception, but encourages the use of clinical judgement when prescribing them for bleeding problems.

Non-hormonal medical options	Tranexamic acid and NSAIDs: • Useful if cycles are predictable as the patient only takes treatment when she is bleeding. • Both available over the counter.
Hormonal options	Include: • Intrauterine system. • Combined hormonal contraception. • Progestogen-only pill. • Progestogen-only implant. • Progestogen-only injectable. **Is it safe to prescribe hormones to a pre-teen?** There are few clinical trials of contraceptive agents conducted in <16-year-olds for ethical reasons (Arch Dis Child, 2014;99(12):1070). BUT the FRSH recommends the use of contraceptives from the menarche to prevent pregnancy – although this is off-licence (FSRH Clinical Guidance: Contraceptive Choices in young people, 2010 (updated 2019)).

	We can reassure patients and parents that: • Hormonal treatments are endorsed by national and international guidelines as effective treatments for bleeding, and have been used off-licence in adolescents for years. • The risks and benefits are likely to be similar to those in adults. • They may not need to take the treatments long term as bleeding patterns can change and improve with age. Ultimately, management depends on weighing up the severity of the bleeding and its effect on quality of life with any potential risks or side-effects of treatment.
Surgery	Rarely needed because structural pathology rare and surgery may have implications for later fertility.

7. Period pain

Period pain is a significant problem for teenage girls, but they can be reluctant or uncertain about seeking medical advice. A useful Practice Pointer in the BJGP considered a primary care approach to the problem (BJGP 2024;74:283).

Menstrual pain can occur with or without underlying pelvic pathology, and teenagers may present with non-cyclical symptoms, making pathology harder to spot. Careful safety-netting and follow-up are important to avoid missing secondary causes of dysmenorrhoea.

Important causes of period pain in this age group include endometriosis, PID, ovarian cysts, congenital urogenital tract abnormalities and adenomyosis.

Assessing period pain in teenagers

Ask about:

- Whether symptoms have been present since menarche or are they progressive?
- Family history of pelvic pain and endometriosis (more common if first-degree relatives are affected).
- Sexual history and wider genitourinary symptoms. Is contraception needed? Consider swabs for ?PID.
- Associated symptoms such as nausea and heavy menstrual bleeding.
- Nature of the pain:
    - Severe?
    - Cyclical?
    - Unilateral? (consider ovarian cysts)
- Smoking history (smoking can exacerbate menstrual pain).
- Impact on school attendance, social life, sporting activities and emotional wellbeing.
    - Period poverty and gender concerns may impact on coping strategies for period pain.
- What self-care measures have already been tried?

Examination is only needed where it will change management (such as if PID is a concern).

Management

- Signpost to support and advice on menstrual symptoms and menstrual products.
- Initial self-care:
    - Heat, rest, exercise and pain management approaches such as TENS and acupuncture may be helpful.
    - Over-the-counter pain relief with NSAIDs – check that doses are optimal and safe.
- Offer a trial of treatment with NSAIDs or hormonal therapies, based on the young person's needs and preferences.
    - Combined hormonal treatment has the most evidence. Continuous rather than cyclical regimens may be more effective, but can lead to breakthrough bleeding for some.
    - Progestogen-only methods have less evidence in this age group, but are commonly used.
    - The IUS can be considered.

Follow-up and referral

Consider referral for ultrasound scanning and specialist assessment if pain is ongoing and debilitating after initial management has been trialled, or where there are family history or examination findings of concern.

Menstrual problems in adolescents

- Heavy menstrual bleeding is common in adolescence, affecting around 40% of girls.
- Period pain affects 70–90% of teens, with up to 30% missing school, social or sporting activities.
- The average age of menarche is 13y (and is not

	getting younger!). • The commonest cause of heavy bleeding in adolescence is anovulatory cycles. • Structural pathology is rare in adolescence, but consider coagulopathy and STIs as other possible causes. • If a girl has heavy menstrual bleeding and no other symptoms, we can treat straight away without doing an examination. • We should arrange an FBC in all patients with heavy menstrual bleeding. • If heavy bleeding is associated with other symptoms (e.g. pain, intermenstrual bleeding), we should do a pelvic and speculum examination and offer an STI screen. If examination is normal, we can start treatment without further investigation. • For girls with period pain, consider family history and risks of endometriosis, PID, ovarian cysts and congenital urogenital tract abnormalities. • We should consider an ultrasound if the patient has significant pain that does not respond to initial treatments, or an abnormal examination. • Initial management of pain may include heat, TENS and rest. • Management options for both pain and heavy bleeding include non-hormonal treatment (tranexamic acid and NSAIDS) and hormonal contraception.

purposes, you must contact us at sales@red-whale.co.uk to discuss licensing, otherwise you may be infringing our intellectual property rights.

Although we make reasonable efforts to update and check the information in our content is accurate at the date of publication or presentation, we make no representations, warranties or guarantees, whether express or implied, that the information in our products is accurate, complete or up to date.

This content is, of necessity, of a brief and general nature, and this should not replace your own good clinical judgment or be regarded as a substitute for taking professional advice in appropriate circumstances. In particular, check drug doses, side effects and interactions with the British National Formulary. Save insofar as any such liability cannot be excluded at law, we do not accept any liability for loss of any type caused by reliance on the information in these pages.