## **Endometriosis Pain Treatment Landscape**

Deciding which endometriosis treatment is right for you can feel overwhelming. The best treatment for you depends on your most bothersome symptoms, and can be different based on where you are on your endometriosis journey. While there is no cure for the disease, there are treatment options to manage your pain associated with endometriosis.<sup>1</sup> Each treatment has benefits and drawbacks. Understanding your medical and surgical management options will help you select the best option(s) to achieve your current treatment goals.<sup>2</sup>



Treatment Class	+ Description	i Benefits	Risks	
Medical Management				
Pain Relievers	Nonsteroidal anti-inflammatory drugs (NSAIDS): A class of pain medicine that decreases the production of pain-producing chemicals (called prostaglandins), which can help to relieve the painful cramps associated with endometriosis <sup>2,3</sup> Many are available as tablets taken by mouth	<ul> <li>Many are available over-the-counter and can be easily obtained without a prescription<sup>3</sup></li> <li>Can be combined with other medical therapies<sup>2</sup></li> </ul>	<ul> <li>Potential skin reactions such as skin reddening, rash, or blisters<sup>3,4</sup></li> <li>Upset stomach symptoms, and potential ulcers and bleeding in the gastrointestinal (GI) tract; more likely with regular use of NSAIDs<sup>20</sup></li> <li>Increased risk of heart attacks or stroke with higher doses and longer use of the NSAID<sup>21</sup></li> </ul>	
Combined Hormonal contraceptives (Birth control)	Using a combination of an estrogen and a progestin can control the menstrual cycle and reduce or stop menstrual bleeding <sup>5</sup> Many are available as tablets taken by mouth Also available as a vaginal ring or a skin patch	<ul> <li>Can make your periods lighter, shorter, and can reduce endometriosis pain</li> <li>Provide contraception</li> <li>Work best in women who have pain during their period<sup>2</sup></li> </ul>	<ul> <li>Headache, nausea, breast tenderness, irregular bleeding / spotting<sup>6, 22</sup></li> <li>Rare; May increase risk of heart attacks, stroke, deep-vein blood clots in some women<sup>2</sup></li> </ul>	
Progestins	Medications containing a synthetic form of progesterone to decrease endometriosis pain and can reduce or stop menstrual bleeding <sup>7</sup> Progestins are available in various forms carrying different types of progestin <sup>2</sup> : • Progestin-only pills • Injection / shot (medroxyprogesterone acetate depot) • Intrauterine device (IUD) containing levonorgestrel • Implant: A small single rod releasing etonogestrel that is inserted just under the skin in the upper arm	<ul> <li>Hormonal medication alternative for women who do not wish to or cannot take estrogens<sup>5</sup></li> <li>Provide contraception</li> <li>Can make your periods lighter, shorter, and can reduce endometriosis pain<sup>2</sup></li> </ul>	<ul> <li>Progestins generally all have similar hormonal side effects related to metabolism and mood changes (headache, nausea, weight gain, breast tenderness, irregular bleeding). Individual reactions to progestins can differ depending on type<sup>7</sup></li> <li>Endometriosis tissue may not always respond to progestins due to progesterone resistance<sup>8</sup></li> <li>Progestin-only pills</li> </ul>	
			<ul> <li>Progestin hormone side effects as listed above<sup>9</sup></li> <li>Injection / shot</li> <li>Associated with bone loss</li> <li>Progestin hormone side effects as listed above<sup>7</sup></li> <li>May take several months to return to a normal cycle after stopping an injectable progestin<sup>10</sup></li> </ul>	
			IUD • Irregular bleeding • IUD may fall out of the uterus partially or completely <sup>11</sup> Implant	
GnRH antagonists	GnRH antagonists dial estrogen levels down and the degree of estrogen reduction is dependent on dose <sup>13</sup> Available as tablets taken by mouth	<ul> <li>Reduce endometriosis pain symptoms (painful periods, pelvic pain in between periods, and pain with sex); may stop your periods<sup>14</sup></li> <li>Menstrual periods return within 1 month for most women after stopping the medication<sup>13</sup></li> </ul>	<ul> <li>Progestin hormone side effects as listed above<sup>12</sup></li> <li>Common side effects include mild to moderate hot flashes or night sweats, headache, nausea, difficulty sleeping, absence of periods, anxiety, joint pain, depression, and mood changes<sup>13,14</sup></li> <li>Because this class of medication works by lowering estrogen, it can also cause bone loss<sup>14</sup></li> <li>Can be used for a limited amount of time, up to 24 months</li> <li>May change pattern of periods, making it hard to tell if pregnancy has occurred / if pregnant<sup>13</sup></li> </ul>	

Treatment Class	+ Description	i Benefits	🛕 Risks	
Medical Management				
GnRH agonists	GnRH agonists first increase estrogen levels before completely blocking the production of estrogen, preventing ovulation and stopping menstrual flow <sup>15</sup> Available as a nasal spray or injection	<ul> <li>Reduce endometriosis pain and bleeding; may stop your periods<sup>17</sup></li> </ul>	<ul> <li>Common side effects include hot flashes, vaginal dryness, decreased sex drive, difficulty sleeping, mood swings, and bone loss over time<sup>15,16</sup> <ul> <li>Side effects may be reduced or minimized with addition of 'addback' hormonal therapy</li> </ul> </li> <li>Initial treatment can be used for a limited amount of time, up to 6 months         <ul> <li>Duration of use may be extended with the addition of 'addback' hormonal therapy<sup>15</sup></li> </ul> </li> <li>Menstrual periods may take up to 10 weeks to return after stopping the medication<sup>17</sup></li> </ul>	
Surgical / Procedural Treatment The choice of surgery and technique could depend on many factors for your individual case				
Ablation Excision	Ablation – a non-surgical procedure that burns the surface of endometrial lesions using a high energy source such as a laser <sup>2, 23</sup> Excision – cuts away endometrial lesions <sup>2</sup> These procedures attempt to reduce endometriosis-associated pain by removing all visible endometriosis lesions and scar tissue without harming the healthy tissue around it <sup>2</sup>	<ul> <li>Can effectively reduce pelvic pain</li> <li>Compared to hysterectomy (removal of uterus), this type of procedure preserves fertility for women who may desire pregnancy</li> </ul>	<ul> <li>Endometriosis lesions and pain can return</li> <li>Risks related to the procedure and anesthesia<sup>2</sup></li> </ul>	
Hysterectomy	<ul> <li>Surgical removal of the uterus. If needed, the cervix, ovaries, and fallopian tubes may also be removed<sup>2</sup></li> <li>Hysterectomy is generally considered for women with endometriosis who have not experienced pain relief from medical treatment or less invasive surgeries</li> <li>Hysterectomy can be appropriate for women who do not wish to become pregnant</li> </ul>	<ul> <li>Least likelihood of recurrence of disease, and of symptom recurrence, as long as the surgeon excises all existing lesions<sup>2</sup></li> <li>Removal of estrogen (produced by the ovaries) can help reduce endometriosis symptoms<sup>19</sup></li> </ul>	<ul> <li>Considered a major surgery associated with short- and long-term complications, some of which may not show up until a few days, weeks, or even years after surgery<sup>18</sup></li> <li>Risks related to the procedure and anesthesia</li> <li>Removing the uterus is not reversible and means that you can no longer become pregnant</li> <li>Slight chance that endometriosis symptoms and lesions may come back<sup>2</sup> if endometriosis is in other areas beyond the uterus<sup>24</sup></li> <li>Risks of removing ovaries: Sends the body into a full menopausal state, and is associated with menopause symptoms such as hot flashes Early surgical menopause can increase the risks of osteoporosis, heart disease, and death at a younger age<sup>2</sup></li> </ul>	

## References:

1. Endometriosis. Office on Women's Health. 2014. Updated Apr 1, 2019. Accessed Aug 12, 2020. https://www.myendometriosis.2. Treating Your Endo: Why, How, When, and What. Mar 2, 2020. Accessed Aug 12, 2020. https://www.myendometriosis.eam.com/ resources/treating-your-endo-why-how-when-and-what. 3. Brown J., Crawford TJ, Allen C, Hopewell S, Prentice A. Nonsteroidal Anti-Inflammatory Drugs for Pain in Women With Endometriosis. Contrace platabase Syst Rev. 2017;1:CD004753. 4. The Benefits and Risks of Pain Relievers: Q & A on NSAIDs with Sharon Hertz. MD. The U.S. Food and Drug Administration. Sep 24, 2015. Accessed Aug 12, 2020. https://www.acog.org/patient-resources/faqs/contraception/combined-hormonal-birth-control-pill-patch-and-ring. 7. Gezer A, Oral E. Progestin Therapy II and Dipction. The American College of Obstetricians and Gynecologists. Accessed Aug 18, 2020. https://www.acog.org/patient-resources/faqs/contraception/ly465-496. D. Progestin-Only Hormonal Birth Control: Pill Patch, and Ring. Frequently Asked Questions: Contraception. The American College of Obstetricians and Gynecologists. Accessed Aug 18, 2020. https://www.acog.org/patient-resources/faqs/contraception-into-pill-and-injection. 10. What Are the Treatments for Endometriosis: Euroreeton. The American College of Obstetricians and Gynecologists. Accessed Jul 16, 2020. https://www.acog.org/patient-resources/faqs/contraception-intraception-intraception-intraception-intraception-intraception-into-ture-pill-and-injection. 10. What Are the Treatments for Endometriosis: Contraception. The American College of Obstetricians and Gynecologists. Accessed Jul 16, 2020. https://www.acog.org/patient-resources/faqs/contraception-intraceptice-and-ingi

Accessed Mar 15, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4286861/.