

**Anatomy & Physiology: Current** 

Research

Short Communication

# Reproductive and Sexual Anatomy

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### Vagina Anatomy

The sexual and reproductive anatomy is variable from one woman to another. This includes the externally visible genitals (e.g. Labia majora) as well as the internal reproductive and sexual organs (e.g. vagina, uterus).

The vagina is a deflated tube that is 5 to 10 centimeters in length and 1.9 cm in width. It has the ability to expand and stretch when necessary. For example, during sexual intercourse, the vagina swells to approximately 10 to 20 centimeters in length and 6 cm in width. It also forms the "birth canal" and drains blood during menstruation. The vagina normally contains various yeast and bacteria, which is necessary to maintain its health. During intercourse, the vagina produces a slippery clear discharge that acts as a lubricant with a noticeable smell.

The distal part of the vagina constricts by the levator ani muscles. Above the pelvic floor, the vagina is much more capacious and distensible. The Bartholin glands are a pair of mucus-secreting glands, approximately 1 cm in diameter and drain through a narrow duct that is approximately 2.5 cm in length in the posterior wall of the vagina. They release secretions that moisten of the vagina and release additional moisture when a woman becomes sexually aroused.

The blood supply to the vagina arises from the descending branches of the uterine artery and from the vaginal artery, a branch of the internal iliac artery. They form an anastomotic arcade along the lateral sides of the vagina. Pelvic muscles are important for sexual performance and Kegel exercises are used to keep the muscles strong. The muscles that cover the pelvic floor are known as the pelvic diaphragm. This consists of the levator ani and coccygeus muscles.

The hymen is a piece of thin tissue that covers the vaginal opening (1 to 2 centimeters inside the vagina) but not every woman is born with a hymen [1]. The G-spot, an area of sensitive tissue, is another controversial part of the vaginal anatomy [2,3]. It is located on the anterior wall of the vagina, about one-third to one-half the way up of the vaginal canal.

During intercourse, the secretion of vaginal fluid makes intercourse more pleasurable for women. There are many methods that were developed to ensure the vagina is well lubricated. These include the use of over the counter lubricants as well as external digital stimulation. When a woman does not enjoy nor has difficulties enjoying sex, she

This article was originally published in a special issue, entitled: "Anatomy", Edited by Abdul Hafeez Baloch might suffer from what is known as Green sickness or female hysteria. Midwifes tried to alleviate this condition by rubbing the vaginal wall either digitally or by objects like a dilator.

## The Vagina and Sexual Intercourse

It is easy to recognize male orgasm by erection and ejaculation, but in females it is difficult to detect. Intercourse is for reproduction and pleasure. Most women obtain sexual information from magazines, sex therapists, gynecologists and most recently social media. When a woman is sexually aroused, the following changes occur in the reproductive tract: the labia minora become swollen and puffy; water is retained to engorge the vaginal walls and provide lubrication. The Bartholin's glands produce lubrication, to maintain comfort during sex. The clitoral hood retracts, and the clitoris hardens and expands. The clitoris has 8,000 nerve endings packed into this small organ that its function to produce a sensory pleasure and it boasts "Clitoral orgasms" versus "vaginal orgasms". Some women experience either clitoral or vaginal orgasm or both.

The G-Spot: Myth or reality? Dr. Ernest Grafenberg, in 1950 described a spot on the vaginal wall that was a few cm from the vaginal opening, (the G-spot). Many researchers claim that "G" doesn't exist at all [4]. It was found that G-spots have a protein called (PDE5), and women who never had a vaginal orgasm lack this protein. In 2008, another study used ultrasound to locate for the G-spot. The G-spot was thicker in women who were having orgasms than women who were not.

French scientists believe that only 60% of women possess a G-spot, and women ejaculate a similar fluid to semen, in appearance and chemical makeup. Women seem to vary in their anatomy and their sexual preferences. Female orgasms, (vaginal or clitoral) may just be a happy accident!

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