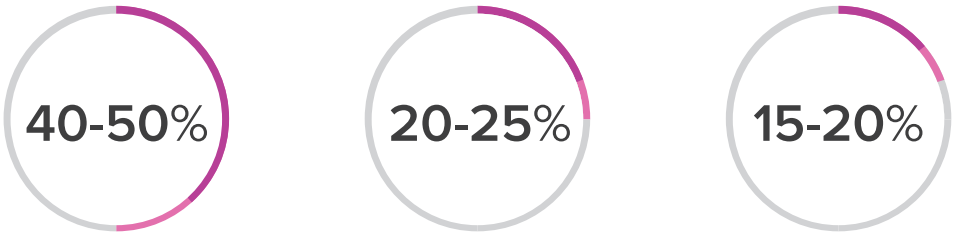
Better Understanding Vaginitis in Women

- Vaginitis is one of the most common reasons women visit their healthcare providers.[1]
- Vaginitis is a general term for disorders of the vagina caused by infection, inflammation or changes in the normal vaginal flora.[2]
- Approximately 90% of vaginitis cases are caused by bacterial vaginosis (BV), *vulvovaginal candidiasis* (VVC) and *Trichomonas vaginalis* (TV).[2]

The most common causes of vaginitis[2]



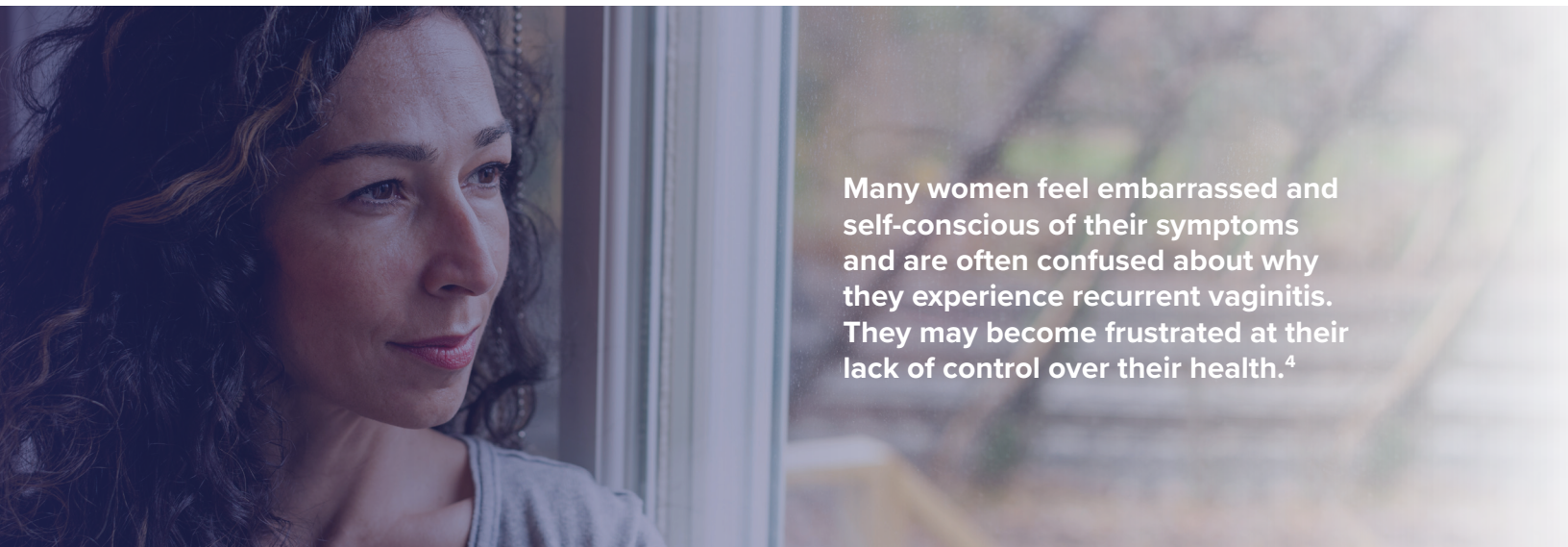
Bacterial vaginosis | **Vulvovaginal candidiasis** | **Trichomonas vaginalis**

Symptoms of the three major causes of vaginitis can vary but may include any combination of the following amongst others:[3]

- Increased vaginal pH
- Abnormal vaginal discharge, odour, itching or burning
- Pain during urination or sexual intercourse
- Spotting or bleeding

Vaginitis can have a significant impact on a woman's health. BV is known to recur in up to **60%** of women and has a severe impact on lifestyle, in both self-esteem and sex-life.[4]

Vaginitis is associated with STI's and other infections of the female genital tract including HIV as well as adverse reproductive outcomes in pregnant and non-pregnant women.[3]



Bacterial vaginosis

- BV is a polymicrobial infection marked by a lack of lactic acid and hydrogen peroxide producing lactobacilli and an overgrowth of facultative anaerobic organisms.[3]
- Diagnostic methods include clinical criteria such as Amsel's and gram staining such as Nugent's.[3,5,6] However, the complex microbiome makes diagnosis challenging and frequently subjective.
- The depletion of lactobacillus species combined with the presence of *Gardnerella vaginalis* or *Atopobium vaginae* at diagnostic levels are highly accurate BV predictors.[7]

Vulvovaginal candidiasis

- VVC is usually caused by *Candida albicans* but can be caused by other Candida species or yeasts. An estimated 75% of women will have one episode of VVC in their lifetime.[8]
- The traditional diagnostic methods for Candida include microscopy and culture.

Trichomoniasis vaginalis

- TV is a sexually transmitted infection caused by a single-cell protozoan parasite called *Trichomonas vaginalis.*
- It is the most common global non-viral STI being prevalent in women across a wide range of ages, peak prevalence is among women aged **46 to 55 years.**[9]
- Nucleic acid amplification testing is a highly sensitive diagnostic method detecting 3 to 5 times more infections than traditional culture and microscopy methods.[10]

The value of an HCP diagnosis and laboratory testing

Women frequently try to self-diagnose and self-treat vaginitis before they visit their healthcare provider assuming that the abnormal vaginal discharge, itching or irritation is due to a simple yeast infection that can be treated with over-the-counter medications.[11]

Misidentifying infections and enabling the wrong treatment increases the potential for recurrent and persistent infections.[12] Diagnosis can be especially complicated due to the prevalence of co-infections, approximately **20-30%** of women with BV are co-infected with Candida species.[13]

A careful clinical history, examination and laboratory testing to determine the aetiology of the vaginal symptoms are warranted. Treatment recommendations vary between BV, Candida infections and TV, reinforcing the need for an accurate and objective diagnosis.[14]

Treatment recommendations

Infection	Treatment
Bacterial vaginosis	Treatment may include antibiotic regimens including metronidazole and clindamycin.[10]
Vulvovaginal candidiasis	Short course topical formulations effectively treat most uncomplicated yeast infections. Antifungals such as fluconazole and clotrimazole are frequently used but Candida speciation is necessary for a targeted treatment as, for example, *C. glabrata* is commonly resistant to azole antifungals.[10,11]
Trichomonas vaginalis	Treatment with antibiotic regimens including metronidazole and tinidazole, as well as therapy for all sexual partners.[10]

The current standard of care for BV relies on microscopic evaluation of vaginal swabs and an empiric diagnosis. This approach has shown to rely heavily on the clinicians level of training and it can often result in incorrect diagnosis and treatment.[15] Given the low predictive value of current clinical practice, many women are misdiagnosed and require multiple medical appointments before reaching a resolution of their symptoms. Traditional microscopy methods for the causes of BV are labour-intensive and are subjective in nature resulting in inconsistent results.[16]

Testing with molecular diagnostic assays such as the Aptima® BV and Aptima CV/TV assays provide an objective, comprehensive and accurate method for diagnosing the causes of vaginitis.[17,18]
An example of the high performance of the Aptima vaginitis assays a recent study by Schwebke[17,18] and co-workers demonstrated that the assays have a significantly higher sensitivity than clinician's diagnoses and in-clinic assessments, indicating that the molecular methods outperformed the traditional diagnostic methods.[19]

Clinician or patient collected vaginal swab samples collected with the Aptima Multitest Swab* Transport media can be tested directly onto the fully automated Panther® system allowing laboratories to deliver accurate results sooner and tests for several infections from a single patient sample.[20]

Aptima® BV Assay **Aptima® CV/TV Assay**

CE 2797 EC REP Hologic BV, Da Vincilaan 5, 1930 Zaventem, Belgium. NB number wherever applicable. EC REP details wherever applicable.

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* The Aptima Multitest Swab is from Legal Manufacturer Puritan. Hologic is not responsible for the performance of this product please refer to Puritan for any further details.