Functional disorders of the pelvic floor such as pelvic organ prolapse and defecatory dysfunction represent a common health problem, especially in women. It is estimated that more than 15% of multiparous women are affected by some sort of pelvic disorder and that 10%–20% of patients seek medical care in gastrointestinal clinics for evacuation dysfunction. These conditions often significantly affect the quality of life and result in a variety of symptoms. The pelvic floor in women is divided into three compartments: the anterior compartment (bladder and urethra), middle compartment (vagina and uterus), and posterior, or anorectal, compartment. The spectrum of dysfunction of the pelvic floor depends on the compartment involved and includes incontinence, constipation, and prolapse, occurring in varying combinations. Constipated patients with functional anorectal abnormalities complain of fecal evacuation difficulties in terms of incomplete evacuation, excessive straining, and need for manually assisted evacuation.

Clinical examination either underestimates or results in misdiagnosis of the site of prolapse in 45%–90% of patients, and it is not reliable for assessing evacuation abnormalities. Furthermore, pelvic floor weakness is usually generalized, so the various pelvic floor compartments should be evaluated simultaneously. In fact, although surgical correction of single-compartment prolapse is possible (eg, colposuspension for cystocele, hysterectomy or suspension for uterine prolapse), symptoms recur in 10%–30% of patients, and the cause of recurrence often involves compartments that were not repaired initially. Besides, surgical correction of obstructed defecation abnormalities, such as rectocele or rectal prolapse (eg, stapled transanal rectal resection) may be modified if general pelvic floor prolapse is involved. Consequently, the treatment of pelvic floor dysfunction is becoming increasingly dependent on preoperative imaging. Dynamic imaging (imaging obtained at rest, during squeezing, straining, and defecation) has a central role in the diagnosis of pelvic floor dysfunction, and it is crucial when choosing a conservative versus a surgical treatment. Dynamic cystoproctography is still the reference imaging technique for assessing functional pelvic organ abnormalities, despite requiring separate opacification of the bladder, vagina, and rectum and being time-consuming and invasive. Moreover, irradiation of younger patients must be considered, and pelvic floor musculature is not visualized. Magnetic resonance (MR) imaging has an increasing role in assessing pelvic floor dysfunction because of its multiplanar imaging capability, the intrinsic soft-tissue contrast it provides, and the absence of ionizing radiation. These features are specifically suitable for those patients with multicompartment involvement and for those who have undergone previous repairs. This lecture shows dynamic MR imaging findings in pelvic floor disorders such as prolapse, obstructed defecation, and fecal incontinence.