Fluorescence diagnosis constitutes a modern method for evaluating neoplastic and non-neoplastic lesions located on the surface of organ systems. In gynecology, accessible organs include vulva, vagina, portio uteri; furthermore, the uterine cavity via hysteroscopy and the pelvis using laparoscopy oder laparotomy. Protoporphyrin IX is a potent photosensitizer which can be accumulated intracellularly by the exogenic supply of 5-aminolevulinic acid or modern ALA esters like hexylaminolevulinate (HAL) or methylaminolevulinate (MAL). Thereby, dysplastic tissues present higher concentrations then normal tissues. The arising contrast is utilized diagnostically and therapeutically in different gynaecological fields. In terms of the cervix uteri, fluorescence diagnosis can raise the sensitivity for detecting neoplastic and pre-neoplastic changes. In ovarian cancer, different studies provide evidence for its possible use to better identify peritoneal metastases and positive lymph nodes. When performing diagnostic laparoscopy on the suspicion of endometriosis, this method is especially useful in identifying non-pigmented lesions. Furthermore, histology studies prove that there is no sustained tissue damage after PDD / PDT using ALA esters. Former studies are required in order to introduce fluorescence diagnosis into routine gynaecological use.