

# Tumor verification

**Verification** is confirmation of diagnosis. This is a condition for starting oncological treatment (only very rarely can purely palliative therapy be indicated).

Histological verification of tissues makes it possible to distinguish benign structures (imitating metastatic involvement) from malignant ones and to determine the final diagnosis of cancer. It is based on histopathological examination of a tissue sample or cytological examination of individual cells, which can be supplemented by molecular-biological and immunohistochemical methods. Verification of tumor tissue is a necessary condition for initiating oncological treatment (without further confirmation it is rarely indicated, e.g. in purely palliative therapy).

The sample must be large enough (greater chance of detecting malignancies) and must not be devalued. The sampling procedure should be specified in advance (location, number of samples, fixation of the sample). For diagnosis, we always prefer histological examination (before cytological), which assesses the complete tissue, not individual cells.

We obtain material for histological examination mainly by perioperative or endoscopic biopsy. Material for cytology is obtained, for example, by smearing the surface of the mucosa (cervix), abrasion (bronchos during bronchoscopy), or fine-needle biopsy (nodes, pancreas).

Due to the small number of examined cells, a negative result of cytological examination cannot be considered final.

## Exfoliative cytology

- detection of tumor cells in body cavities or on the surface;
- Doctors obtain them by direct swab (eg on the cervix), or after mechanical irritation, lavage or examination of sediment in the effusion.

## Aspiration cytology

- **FNA** – *fine needle aspiration* – using specially designed thin needles;
- For aspiration doctors indicate – nodes, suspicious outgrowings
- possibility of sonograph assisted aspiration
- negative result of cytology cannot be considered final!

## Biopsy examination

- perioperatively, endoscopically, percutaneously
- obtaining a sufficient amount of tissue for histological examination;

## Trepanobiopsy

- examination of bone marrow taken from a hip bone;
- informs doctors on the state of hematopoiesis, better reveals lymphoma infiltration than sternal puncture.

## Links

### Related articles

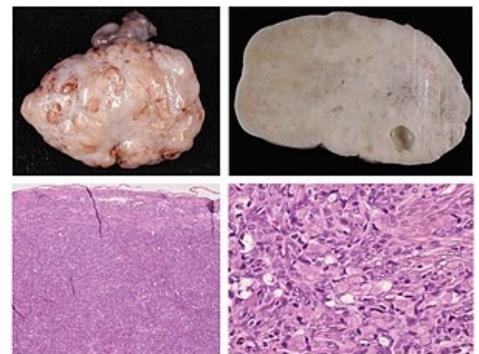
- Endoscope
- Classification of tumors

### Used literature

- VOKURKA, Martin and Jan HUGO, et al. *Great medical dictionary*. 9th edition. Prague : Maxdorf, c2009. ISBN 978-80-7345-202-5.

### Source

- BENEŠ, Jiří. *Study materials* [online]. [cit. 31. 3. 2010]. <<http://jirben.wz.cz>>.
- ZAZULA, Rostislav – SLÁMA, Ondřej, et al. *Clinical oncology for medics: solid tumors and tumors of childhood* . [online]. Multimedia support for teaching clinical and medical disciplines : Portal of the Faculty of Medicine of Masaryk University, ©2018. [cit. 2021-05-16]. <[https://is.muni.cz/el/med/jaro2020/BDON061p/um/Klinicka\\_onkologie\\_pro\\_mediky\\_2018.pdf?lang=en](https://is.muni.cz/el/med/jaro2020/BDON061p/um/Klinicka_onkologie_pro_mediky_2018.pdf?lang=en)>.



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