

- Park HL, Kim LS. The Current Role of Vacuum Assisted Breast Biopsy System in Breast Disease. J Breast Cancer. 2011 Mar;14(1):1-7.
- London Cancer Surgical Guidelines June 2015.
- Pinder SE, Shaaban A, Deb R, Desai A, Gandhi G, Lee AHS, et al. NHS Breast Screening multidisciplinary working group guidelines for the diagnosis and management of breast lesions of uncertain malignant potential on core biopsy (B3 lesions). Clin Radiol. 2018 Aug;73(8):682-692.
- Whitworth P, Hogan A, Ferko N, Son D, Wang F, Xiong Y, et al. Reduced Hospital Costs for Ultrasound-guided Vacuum-assisted Excision Compared with Open Surgery in Patients with Benign Breast Masses and High-risk Lesions. Journal of Breast Imaging. 2020; Vol. 2, Issue 5:452-61.
- Rageth CJ, O'Flynn EAM, Comstock C, Kurtz C, Kubik R, Madjar H, et al. First International Consensus Conference on lesions of uncertain malignant potential in the breast (B3 lesions). Breast Cancer Res Treat. 2016 Sep;159(2):203-13.
- Rageth CJ, O'Flynn EAM, Pinker K, Kubik-Huch RA, Mundinger A, Decker T, et al. Second International Consensus Conference on lesions of uncertain malignant potential in the breast (B3 lesions). Breast Cancer Res Treat. 2019 Apr;174(2):279-296.

If you want to learn more about vacuum-assisted biopsy, consult our web page

vab-guide.bd.com

Access for professionals

Videos, articles and useful resources on vacuum-assisted biopsy are available



Vacuum-assisted biopsy: percutaneous biopsy technique



Becton Dickinson Ireland Limited
Donore Road, Drogheda,
A92 YW26 Co. Louth, Ireland

BD-46845

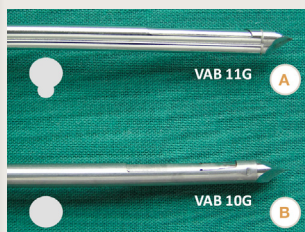




➤ What is vacuum-assisted biopsy?

Vacuum-assisted biopsy (VAB) is a percutaneous biopsy technique based on obtaining breast tissue via a combination of vacuum and incision. It is performed using specifically designed devices where the biopsy needle is connected to an aspiration system containing a rotary scalpel near the tip.

The combination of vacuum aspiration and incision enables the continuous, contiguous acquisition of tissue samples, which may even include removal of the entire lesion.



➤ Different needle models for vacuum-assisted biopsy (VAB).
A) Needle with double lumen: the top one with larger gauge is for sampling and the bottom one for applying suction.
B) Needle with single lumen for sampling and vacuum.

➤ What are the advantages over conventional core needle biopsy?

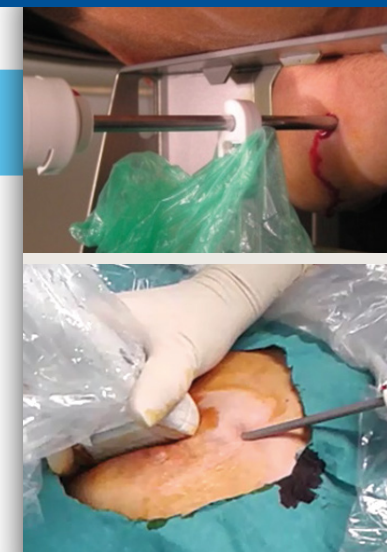
The key advantage of VAB over conventional core needle biopsy (CNB) is **the acquisition of larger, better quality samples** for diagnosis by using large calibre needles and applying a vacuum.

VAB sample acquisition enables continuous, contiguous tissue sampling using a single needle insertion in the breast, meaning the range of indications and diagnostic accuracy of VAB are greater than those of CNB.

➤ ... And over surgical biopsy?

The main advantages are lower morbidity and greater accuracy in obtaining samples of the lesion.

VAB does not require hospital admission, general anaesthesia or sedation. Recovery time is shorter than with surgery, thereby allowing the woman to return to her day-to-day activities sooner. VAB does not require a surgical incision, so skin scarring is minimal. The guide with imaging techniques increases accuracy in obtaining lesion samples while respecting the normal perilesional breast tissue.



➤ The needle is being inserted into the breast.

➤ When is it indicated?

➤ VAB is not a replacement for CNB, but an alternative to surgery

VAB indications are continually expanding and include both diagnostic confirmation and percutaneous treatment of certain breast lesions.

The possibility of obtaining a considerable volume of tissue via continuous, contiguous sampling with large calibre needles makes VAB **the technique of choice** for diagnostic confirmation of histologically complex lesions, for which conventional puncture techniques have a high probability of false negatives and underestimation.

➤ Technique of choice

VAB is the technique of choice in the diagnosis of microcalcifications, lesions only detectable using MRI, suspected histologically complex lesions using imaging techniques, non-conclusive

results and B3 lesions confirmed via previous puncture.

➤ Percutaneous treatment

The possibility of complete excision of the lesion using imaging techniques make VAB a good alternative to surgical removal of lesions confirmed as benign or with a high probability of benignity using imaging techniques. Other lesser-known indications include gynaecomasty treatment and certain types of inflammatory pathology.

➤ Future indications

Although percutaneous excision using VAB is not currently indicated for breast cancer treatment, it is starting to be considered as an alternative to surgery in selected cases.