

Which technique for removing nevi is least scarring?

Evidence-based answer

A shave biopsy with a razor blade or #15 scalpel is the best approach for a facial nevus, assuming malignancy is not suspected. The resulting scar is usually flat, smaller than the lesion, has no suture

lines, and—if shaved in mid or upper dermis—has a low risk of producing a hypertrophic or hypotrophic scar (strength of recommendation: **C**, expert opinion, committee guidelines).

Clinical commentary

Shave biopsies are quick and well-tolerated

If you suspect malignancy in a nevus, obtain an excisional or incisional biopsy. Shave biopsies are best suited for raised, flesh-colored nevi and are generally quick, well-tolerated, and cost-effective. Tissue from a shave biopsy can be submitted for histological evaluation.

Shave biopsies are preferred by patients because there are no sutures and scarring is minimized. The site may be pink

and may take several months to develop a normal appearance. The final result may be unnoticeable, or leave an indentation or be hypo- or hyperpigmented.

Hairy, pigmented, and compound nevi are likely to do better with a punch biopsy. To prevent recurrence, seek histologic confirmation that the entire nevus has been removed.

Parul Harsora, MD
University of Texas Southwestern, Dallas

Michael Fisher, MD, MPH
Department of Family Medicine,
University of North Carolina
School of Medicine, Chapel Hill

Hattie H. Vines, MSLS, AHIP
Information and Education
Services, Duke University
Medical Center Library,
Durham, NC

FAST TRACK

If malignancy is not suspected, a shave biopsy is the best approach to facial nevi

Evidence summary

Numerous reports and guidelines indicate that if a nevus is even slightly suspicious for malignancy, it should be removed by excisional biopsy or sampled for diagnosis by punch or incisional biopsy. There are no randomized controlled trials or cohort studies comparing techniques for removing raised nevi from the face.

Shave biopsy has good outcomes

Expert opinion and individual prospective case series show acceptable outcomes for shave biopsy. One prospective study followed 55 patients after

removal of nevi from the head and neck. These nevi were removed using a shave procedure with a #15 scalpel and hot cautery for bleeding. Of the 55 sites, 4 retained pigment and 30 had a visible scar with a mean diameter of 5 mm at 6- to 8-month follow-up.¹ The mean diameter of the original lesions was 6 mm. There was no difference between the size of those lesions that scarred and those that didn't.

Researchers conducting a second retrospective study, done at least 1 year after the procedure, used a questionnaire to ask 76 patients (with a total of 83

Nevus on the nose.

**FAST TRACK**

Shave biopsies are best suited for raised, flesh-colored nevi and are generally quick, well-tolerated, and cost-effective

TABLE**Favorable cosmetic results following shave biopsy of facial nevi**

STUDY	NO. PTS /NEVI	% WITH RETAINED PIGMENT OR RECURRENCE	% WITH VISIBLE SCARRING	FOLLOW-UP INTERVAL	EVALUATION/ DONE BY
Hudson-Peacock ¹	55/55	13	55	6–8 mo	Cosmetically acceptable/ patients
Bong ²	76/83	28	67	≥ 1 yr	86%: better than nevus/ patients
Zanardini ³	206/ 215	4	9	3 mo	90%: excellent* 9%: good/surgeons
Ferrandiz ⁴	Not known/ 59	20†	67	3 mo	98%: better than nevus/ pts; 92%: excellent or acceptable‡/ surgeons

* Excellent = no noticeable scar, good = slightly noticeable scar with normochromia or hypochromia, poor = depressed scar or intense dyschromia.

† Some lesions not papular.

‡ Excellent cosmetic result = imperceptible scar without erythema, hyper- or hypo-pigmentation, hypertrophy or atrophy. Acceptable = scar better than original mole. Poor = left scar worse than original mole.

nevi removed from the face by shave excision) about their perceptions of the scar.² Patients described their lesions as: no scar (33%), white and flat (25%), depressed (19%), raised (15%), and pigmented (7%). Eighty-six percent thought their scars looked better than the nevus and 79% were “happy with the way the scar looks now.” Two additional studies, based on both patient and provider perceptions, with similar conclusions, are presented in the **TABLE**.^{3,4}

Atypical lesions should be excised

Atypical lesions require excisional biopsy. The depth and architecture of the lesion, if melanoma, cannot be determined by shave biopsy, and both treatment and prognosis depend on those characteristics.

These guidelines derive from well-designed, nonexperimental descriptive studies.⁵ However, a recent retrospective study compared the Breslow depth determination of 4 different biopsy techniques, performed by experienced dermatologists, with the subsequent depth on definitive surgery for melanoma. This study found that superficial shave,

deep shave, and punch biopsy predicted the Breslow depth 88% (95/108) of the time.⁶ As expected, excisional biopsy predicted the depth 100% (30/30) of the time. The location of the biopsy sites were not reported. The choice of biopsy was influenced by the suspicion of melanoma; thin (<1 mm) melanomas were more likely to be superficially shaved than deep-shaved or punched.

Recommendations from others

Guidelines on nevocellular nevi from the American Academy of Dermatology recommend a simple excisional or incisional biopsy; they do not discuss the method of removal for benign appearing facial lesions.⁷

The UK Guidelines for the Management of Cutaneous Melanoma recommend that suspicious lesions be excised completely (excisional biopsy) and sent for confirmatory histopathological examination.⁵ A biopsy that transects the depth of the lesion (for example, superficial shave biopsy) should be avoided because histological depth of invasion is the basic criterion for staging and shave biopsy makes the staging impossible in some cases. ■

CONTINUED

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THE JOURNAL OF FAMILY PRACTICE

Evidence-based medicine ratings

THE JOURNAL OF FAMILY PRACTICE uses a simplified rating system called the Strength of Recommendation Taxonomy (SORT). More detailed information can be found in the February 2003 issue, "Simplifying the language of patient care," pages 111–120.

Strength of Recommendation (SOR) ratings are given for key recommendations for readers. SORs should be based on the highest-quality evidence available.

- A Recommendation based on consistent and good-quality patient-oriented evidence.
- B Recommendation based on inconsistent or limited-quality patient-oriented evidence.
- C Recommendation based on consensus, usual practice, opinion, disease-oriented evidence, or case series for studies of diagnosis, treatment, prevention, or screening

Levels of evidence determine whether a study measuring patient-oriented outcomes is of good or limited quality, and whether the results are consistent or inconsistent between studies.

STUDY QUALITY

1—Good-quality, patient-oriented evidence (eg, validated clinical decision rules, systematic reviews and meta-analyses of randomized controlled trials [RCTs] with consistent results, high-quality RCTs, or diagnostic cohort studies)

2—Lower-quality patient-oriented evidence (eg, unvalidated clinical decision rules, lower-quality clinical trials, retrospective cohort studies, case control studies, case series)

3—Other evidence (eg, consensus guidelines, usual practice, opinion, case series for studies of diagnosis, treatment, prevention, or screening)

Consistency across studies

Consistent—Most studies found similar or at least coherent conclusions (coherence means that differences are explainable); or If high-quality and up-to-date systematic reviews or meta-analyses exist, they support the recommendation

Inconsistent—Considerable variation among study findings and lack of coherence; or If high-quality and up-to-date systematic reviews or meta-analyses exist, they do not find consistent evidence in favor of the recommendation

CLINICAL INQUIRIES

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