

There is clear controversy, mainly around whether **5 mm margins are adequate for melanoma in situ**, especially **lentigo maligna**, head/neck lesions, large lesions, and lesions on chronically sun-damaged skin.

Issue	Why controversial	Key literature
5 mm vs 5–10 mm vs wider	Many guidelines recommend 5–10 mm , but evidence is weak and mostly observational.	Friedman et al. state that most guidelines recommend 5–10 mm , but the supporting evidence is weak.
Subclinical extension	MIS, particularly lentigo maligna, may extend beyond visible borders, making 5 mm inadequate.	Friedman et al. specifically argue wider margins are often needed due to subclinical extension, especially LM.
Lentigo maligna/head-neck disease	Cosmetic/anatomic constraints favour smaller margins, but recurrence risk is higher if incompletely cleared.	Elshot et al. found recurrence rates of 6–20% after WLE using guideline-recommended 5 mm margins.
WLE vs margin-controlled surgery	Mohs/staged excision may better assess peripheral margins than bread-loafed WLE specimens.	AAD notes Mohs and staged excision can provide exhaustive peripheral margin assessment for MIS, LM type, especially tissue-sparing sites.
Low-risk small MIS	Some data suggest 5 mm may be adequate for small, well-defined, non-LM lesions on low-risk sites.	A 2024 JAMA Dermatology article specifically addressed recurrence after 5 mm excision and notes ongoing controversy by histology, site and size.

Published papers explicitly addressing the controversy

Citation	Type	Usefulness
Friedman EB, Scolyer RA, Williams GJ, Thompson JF. “Melanoma In Situ: A Critical Review and Re-Evaluation of Current Excision Margin Recommendations.” Adv Ther. 2021.	Critical review	Probably the best single paper on the margin controversy.
Kunishige et al. “Surgical margins for melanoma in situ.” J Am Acad Dermatol. 2012.	Large Mohs-based margin study	Directly framed around the controversy that 5 mm is often inadequate.
Elshot et al. “Lentigo maligna (melanoma): A systematic review and meta-analysis.” JEADV. 2023.	Systematic review/meta-analysis	Strongest recent synthesis for LM/MIS recurrence and treatment outcomes.
Bittar et al. “Systematic review and meta-analysis of local recurrence rates of head and neck cutaneous melanomas after WLE, Mohs, or staged excision.” JAAD. 2021.	Systematic review/meta-analysis	Supports lower recurrence with margin-controlled surgery in head/neck melanoma/MIS.
Zitelli et al. “Recurrence Rate of Melanoma In Situ Excised With a 5-mm Margin.” JAMA Dermatology. 2024.	Retrospective cohort	Useful counterbalance: supports 5 mm for selected small, low-risk MIS.

Practical synthesis

Scenario	Literature-supported interpretation
Small, well-circumscribed, non-LM MIS on trunk/proximal limb	5 mm may be reasonable if histologic clearance achieved.
Lentigo maligna, head/neck, large lesion, ill-defined borders, recurrent MIS	5 mm is often inadequate; consider 10 mm or margin-controlled surgery .
Cosmetically/functionally sensitive sites	Mohs with melanocytic immunostains or staged excision is often favoured.

So yes: the controversy is well published, and the best anchor article is **Friedman et al. 2021**, supplemented by the **2023 LM systematic review** and Mohs/staged excision meta-analyses.

01 April 2026

Dr B. Stewart
Feilding Medical Centre
Feilding

Dear Dr Stewart,

You have asked us about this fully excised melanoma in situ. I will enclose a summary of my thoughts on this, but I believe there is no proven advantage for re-excising a fully excised melanoma in situ. Particularly at this site the morbidity of further surgery far outweighs any benefits.

Kind regards.

Yours sincerely,

Richard Coutts
General Surgeon



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01 April 2026

Dear Colleagues,

Re: **Melanoma In Situ**

There are large numbers of enquiries about the contemporary management of melanoma in situ. There has been a slow progression in the expectations about care for these patients, but the evidence base for decision making is very sparse. I recently tabled two journal articles that discuss the management of melanoma in situ at our department review meeting and a generic letter has resulted.

The original National Institute of Health Guidelines for the operative margin on melanoma in situ was advised at 5mm without an evidence base. The reason for this was that it gave a reasonable chance of a clear histological margin. At no stage has there been any trials that have looked at the long-term survival of patients with re-excision of fully excised melanoma in situ.

The first paper is from the Department of Plastic and Reconstructive Surgery published for the American Society of Plastic Surgery in 2014. It followed up 410 patients who had melanoma in situ. It looked at the recurrence rate depending on the histological clearance. The mean excision margin of those that recurred was 1.9mm compared with the mean excision margin of nonrecurrences at 3.8mm. The rate of recurrence with a margin of <3mm was 3.8% compared to 0.5% with a margin of >3mm. The authors concluded therefore that melanoma in situ recurrence rate did depend on the margin. Most importantly however in the group of 400 patients only one invasive melanoma occurred, and it was in a patient who had involved margins. As it was 0.5mm in depth it translated to a Breslow grade of 1 which has a >95% long term cure rate. What this review article shows is that although melanoma in situ has a slightly higher recurrence rate with a narrow margin the long-term clinical consequence of that is absolutely negligible.

The next article which is much more contemporary and the reference to it is an email reference <https://doi.org/10.1016/j.ejcskin.2025.10059>. This is a review of 747 patients diagnosed with a melanoma in situ. A significant number of the patients did not undergo a re-excision to achieve a 5mm wide margin. Significantly 743 out of the 747 did not develop a recurrence at the excision site over a 48 month period of follow up. The conclusion is "based on the study we suggest re-evaluation of the current guidelines to correctly assess the necessity of a 5mm margin excision for all cases of melanoma in situ and particular for lentigo maligna and for apical subtype allowing a clinical judgement on a case-by-case basis. The possibility of achieving a single histology with clear excision could alleviate the burden on patients to undergo a second surgery. This approach could also mitigate the overload of surgical interventions thereby reducing the number of negative histological samples for the pathologists.

In summary they are saying that the chance of adverse outcome once you have a clear margin of not going back and re-excising is so low that we should stop re-excising melanoma that has a clear margin.

I hope these comments make sense and why I have adopted this stance over the last few years.

Kind regards,

Yours sincerely,



Richard Coutts
General Surgeon

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Recurrence Rate of Melanoma In Situ Excised With a 5-mm Excisional Margin

John A. Zitelli

JAMA Dermatol 2024;160;(8):803-804. doi:10.1001/jamadermatol.2024.1877

The recommendations for treating invasive melanoma have evolved dramatically during the past century. The surgical practices of radically wide margins and amputations were abandoned when evidence from randomized clinical trials (RCTs) showed that surgical margins as narrow as 1 cm were safe for most melanomas. In contrast, the recommendations for surgical margins for melanoma in situ (MIS) are not based on RCTs and exist with some controversy. The earliest recommendations of a 5-mm surgical margin for MIS was suggested by the National Institutes of Health by a panel of dermatologists in 1991 based on their experience rather than scientific evidence, and this became the recommended excision margin adopted by many national and international groups writing clinical guidelines.¹ At the same time, the experience of Mohs surgeons and others looking carefully at the width of surgical margins necessary to achieve negative histologic margins led to a different conclusion. Multiple studies from various institutions showed that MIS often extends beyond a 5-mm clinical margin, and wider margins were necessary to avoid local recurrence and tumor progression.² Although no RCTs were performed to my knowledge, the preponderance of evidence from these sources came to the same conclusion that margins wider than 5 mm for MIS are necessary to provide negative histologic margins in 97% of real-world lesions of MIS. However, the controversy continued about surgical margins for subgroups of MIS based on histology (MIS vs lentigo maligna), location (head and neck vs trunk and extremity), and other clinical parameters. Today, most clinical guidelines recommend a range of margins of 0.5 to 1 cm for all MIS, noting that the goal of excision is negative histologic margins.