

Intracranial metastases diagnosis

see also [Brain metastases differential diagnosis](#).

Liquid biopsy

see [Liquid biopsy for intracranial metastases diagnosis](#)

Imaging

[Imaging](#) plays a key role in the [diagnosis](#) of [intracranial metastases](#). Imaging is used to detect metastases in patients with known malignancies and new neurological [signs](#) or [symptoms](#), as well as to screen for CNS involvement in patients with known [cancer](#). [Computed tomography](#) (CT) and [magnetic resonance imaging](#) (MRI) are the key imaging modalities used in the diagnosis of [brain metastases](#).

In difficult cases, such as newly diagnosed solitary enhancing brain lesions in patients without known malignancy, advanced imaging techniques including [Proton magnetic resonance spectroscopic imaging](#) (MRS), [Dynamic contrast-enhanced magnetic resonance imaging](#), [diffusion weighted imaging](#) (DWI), and [diffusion tensor imaging](#) (DTI) may aid in arriving at the correct diagnosis.

A image-rich review of Fink and Fink in 2013 discusses the imaging evaluation of patients with suspected intracranial involvement and malignancy, describes typical imaging findings of parenchymal [brain metastases](#) on CT and MRI, and provides clues to specific histological diagnoses such as the presence of hemorrhage. Additionally, the role of advanced imaging techniques is reviewed, specifically in the context of differentiating metastases from [high-grade glioma](#) and other solitary enhancing brain lesions. Extra-axial CNS involvement by metastases, including pachymeningeal and leptomeningeal metastases is also briefly reviewed ¹⁾.

Magnetic resonance imaging for intracranial metastases

see [Magnetic resonance imaging for intracranial metastases](#).

Positron emission tomography for intracranial metastases

see [Positron emission tomography for intracranial metastases](#).

References

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Fink KR, Fink JR. Imaging of brain metastases. Surg Neurol Int. 2013 May 2;4(Suppl 4):S209-19. doi:

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