

Prevalence of Abnormal Test Results for Commonly Ordered Tests

Tests are provided in alphabetical order.

To locate a specific test, use **Ctrl+F** (PC) or **Cmd+F** (Mac).

Chest X-ray in asymptomatic patients

- **Prevalence of abnormal results:** 1.2%, of which 93% were false positives, and none required treatment.
 - **Reference:**
Tigges S, Roberts DL, Vydareny KH, et al. *Radiology*. 2004;233:575–578.
doi:10.1148/radiol.2332031796.
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Complete blood count (CBC)

- **Prevalence of abnormal results:** Up to 11% of routine CBC tests are abnormal, but less than 1% require a management change.
 - **Clinical relevance:** Serious disease is virtually never found in routine testing without cause.
 - **Reference:**
<https://cfpcclearn.ca/tfp187/>
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EKG in asymptomatic patients

- **Prevalence of abnormalities in a cohort:**
 - Normal: 77.7%
 - Abnormal: 22.3%
 - One minor abnormality: 16.8%
 - Two or more minor abnormalities: 3.9%
 - Major abnormalities: 1.5%
 - **Study population:** Nationwide Japanese cohort of 3,698,429 adults aged 35–65, with 14.1% having hypertension, 3.6% diabetes, and 8.1% dyslipidemia.
 - **Reference:**
Yagi R, Mori Y, Goto S, et al. *JAMA Intern Med*. 2024;184(9):1035–1044.
doi:10.1001/jamainternmed.2024.2270.
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Imaging incidentalomas on CT Scans

- **Incidental findings:** Incidentalomas are identified in approximately 40 % of all imaging examinations, but vary widely, see table below for % by imaging modality and region :

Imaging Modality	Percent of Examinations with Any Incidental Finding	Percent of Examinations Receiving Action
CT		
- Thorax	54.8%	2.8%
- Abdomen/Pelvis	60.9%	9.2%
- All other CT scans	25%	2.1%
MRI		
- Head	42.9%	2.2%
- All other MR scans	19.3%	0%
Ultrasound (US)	9.2%	0%
Plain Film Radiography	38.9%	0%
Nuclear Medicine	4.2%	0%
Total (All Imaging Modalities)	39.8%	2.5%

- **Reference:**
Adams SJ, Babyn PS. Incidental findings in imaging: considerations and guidance for management. Department of Medical Imaging, University of Saskatchewan and Saskatoon Health Region, Saskatoon, SK, Canada. Available from: https://car.ca/uploads/Education%20Lifelong%20Learning/Meetings/ASM2015_Speakers_Pres/EE016_Incidental_Findings_in_Imaging_Considerations_and_Guidance_for_Management_Adams.pdf
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Cervical cancer screening

- **Prevalence of abnormal results:**
 - Any abnormal result: 16.4%
 - Abnormal pap only: 10.9%
 - Abnormal HPV only: 2.8%
 - Both abnormal pap and HPV: 2.7%
 - **Reference:**
Chido-Amajuoyi OG, Shete S, et al. *Am J Obstet Gynecol*. 2021;221(1):75–77.
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Screening mammography (false positives)

- **False-positive rates:**
 - With prior films: 5.4%

- Without prior films: 9.0%
 - **Reference:**
Elmore JG, Miglioretti DL, Reisch LM, et al. *J Natl Cancer Inst.* 2002;94(18):1373–1380.
doi:10.1093/jnci/94.18.1373.
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Stool fecal occult blood testing (FIT)

- **Prevalence of abnormal results:** 10%–15% of people screened with FIT have an abnormal result and require additional testing.
 - **Reference:**
BC Cancer and Ontario Cancer Care estimates.
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TSH (thyroid-stimulating hormone)

- **Prevalence:**
 - Subclinical hypothyroidism: 4%–10%
 - Of these, 40% revert to normal in ~2.5 years.
 - Subclinical hyperthyroidism: 2%
- **Clinical relevance:** The Canadian Task Force on Preventive Health Care recommends against screening asymptomatic, non-pregnant patients.
- **Reference:**
Allan GM, Morros MP, Young J. *Canadian Family Physician.* 2020;66(3):188.