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**Computed tomography colonography and radiation risk: How low can we go?**

Popic J *et al.* CTC and radiation risk

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### Abstract

Computed tomography colonography (CTC) has become a key examination in detecting colonic polyps and colorectal carcinoma (CRC). It is particularly useful after incomplete optical colonoscopy (OC) for patients with sedation risks and patients anxious about the risks or potential discomfort associated with OC. CTC's main advantages compared with OC are its non-invasive nature, better patient compliance, and the ability to assess the extracolonic disease. Despite these advantages, ionizing

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### Computed Tomography (CT) Colonography

<https://www.iaea.org/resources/rpop/health...> ▾

Since dose from a single CT **colonography** is lower than this, the potential **risk can** only be estimated by assuming a dose response relationship, but multiple CT scans performed on the same patient with no dose reduction techniques may result in doses above 100 mSv.

### Reducing Radiation Dose at CT Colonography: Decreasing ...

<https://pubs.rsna.org/doi/full/10.1148/radiol.12120134>

Introduction. **Computed** tomographic (CT) **colonography** has been shown to be a useful screening examination in the detection of adenomatous polyps and occult colon and rectal carcinomas (1,2).A potential impediment to screening CT **colonography** is the concern over **radiation** to patients undergoing a screening examination ().The true **risk** of very **low** levels of intermittent **radiation** is unknown (4 ...

**Cited by:** 36      **Author:** Kevin J Chang, Dominique B Caovan, David...  
**Publish Year:** 2013

#### PEOPLE ALSO ASK

- How much radiation does a CT colonography use? ▾
- Does ct scan have radiation? ▾
- What is computed axial tomography? ▾
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Feedback

### Computed Tomography Colonography Less Costly Than ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6306102>

May 31, 2018 · **Computed tomography** (CT) **colonography** is effective, has patient-centered advantages, and **can** increase colorectal cancer (CRC) screening. .... Although there is discussion about whether polypectomy is necessary for **low-risk** patients who present with small polyps ... For CT **colonography**, **we** assumed that people will return, on average, in 4.9 years

**Cited by:** 4      **Author:** Tia Goss Sawhney, Bruce S Pyenson, David...  
**Publish Year:** 2018

### Radiation Exposure During Virtual Colonoscopy Doesn't ...

<https://www.sciencedaily.com/releases/2005/08/050814174954.htm> ▾

Aug 18, 2005 · The risk of developing cancer as a result of being exposed to X-rays during **computed tomography colonography** (also known as "virtual colonoscopy" or CT **colonography**...

### Risks of Computed Tomography (CT) Scan | Stanford Health Care

<https://stanfordhealthcare.org/medical-tests/c/ct-scan/risk-factors.html> ▾

The amount of **radiation** used during a CT scan is considered minimal; therefore, the **risk** for **radiation** exposure is **low**. If you are pregnant or suspect that you may be pregnant, you should notify your physician. **Radiation** exposure during pregnancy may lead to birth defects. If contrast dye is used, there is a **risk** for allergic reaction to the dye.

### CT Colonography at Different Radiation Dose Levels ...

<https://pubs.rsna.org/doi/abs/10.1148/radiol.2241011126>

PURPOSE: To investigate the sensitivity and specificity of polyp detection and the image quality of **computed** tomographic (CT) **colonography** at different **radiation** dose levels and to study effective doses reported in literature on CT **colonography**. MATERIALS AND METHODS: CT **colonography** and colonoscopy were performed with 100 mAs in 50 consecutive patients at high **risk** for colorectal ...

### Radiation Risk From CT: Implications for Cancer Screening ...

<https://www.ajronline.org/doi/full/10.2214/AJR.12.9226>

Though it **does** expose patients to ionizing radiation, **risk** analyses have estimated only a modest increase in radiation-induced malignancy, ranging from as high as 0.14% **risk** for one scan in a 50-year-old patient to an analysis that used updated models **to** predict a 0.15% **risk** for someone undergoing screening every 5 years from ages 50 to 80 years . Considering that CT **colonography** has the potential **to** ...

### What are the Radiation Risks from CT? | FDA

<https://www.fda.gov/.../medical-x-ray-imaging/what-are-radiation-risks-ct> ▾

The main **risks** associated with CT scans are incidental results, leading to unneeded, possibly invasive, follow-up tests that may present additional **risks** and the increased possibility of cancer ...

### How Much Radiation Do You Get From CT Scans? - WebMD

<https://www.webmd.com/cancer/radiation-doses-ct-scans> ▾

Colonography: 6 mSv, equal to about 2 years of **background radiation**; Head: 2 mSv, equal to about 8 months of **background radiation**; Spine: 6 mSv, equal to about 2 years of background radiation



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## Low-Dose Computed Tomography Colonography Technique

<https://pubmed.ncbi.nlm.nih.gov/30119769>

Significant anxiety has been expressed by some over the **radiation risks** associated with **computed tomography** (CT), particularly when it applies to a screening examination such as CT **colonography**. These theoretic **risks** are far outweighed by the significant benefits colorectal cancer screening offers. ...

**Author:** Kevin J. Chang, Judy Yee **Publish Year:** 2018

## Computed Tomography (CT) Colonography

<https://www.iaea.org/resources/rpop/health...> ▾

Since dose from a single CT **colonography** is lower than this, the potential **risk can** only be estimated by assuming a dose response relationship, but multiple CT scans performed on the same patient with no dose reduction techniques may result in doses above 100 mSv.

### PEOPLE ALSO ASK

How much radiation does a CT colonography use? ▾

What is radiation risk from CT scan? ▾

What are computed tomography scans used for? ▾

What radiation is used for colonoscopy? ▾

Feedback

## [PDF] Computed Tomography (CT) Colonography

<https://www.nth.nhs.uk/content/uploads/2017/07/...>

**Computed Tomography (CT) Colonography** CS/552.1 Page 2 of 7 For Review Summer 2020 What are the **risks** and possible complications? **radiation**. CT scans involve the use of **radiation**.

**Radiation risks** from x-rays are small with the dosages used in this examination. The benefits of this examination outweigh any small **radiation risk**.

## Cardiac Computed Tomography and Risks of Radiation