

Raadonka iyo Qoyska ku Shaqeeya Guryaha ee Daryeelka Carruurta.

Ilaali naftaada, qoyskaaga, iyo carruurta aad daryeesho adigoo baaraya raadonka oo yareynaya heerkiisa haddii uu sarreeyo..

Waa maxay Radon?

Radon waa gaas aan lahayn midab iyo ur, wuxuuna yahay gaas raadiyaaktiif ah oo si dabiici ah uga yimaada ciidda. Wuxuu guryaha u soo galaa iyada oo uu ka dhex maro daloolada aasaaska dhismaha, sida dildillaacyada ama meelaha ciidda ka muuqato. Guriga nooc kasta ha ahaadee—da'diisa, qaabka loo dhisay, ama xaaladda ciidda—wuxuu yeelan karaa heer sare oo Radon ah.

Radon waa walaac caafimaad sababtoo ah wuxuu keenaa kansarka sanbabada. Khatarta kansarka sanbabada waxay sii kordhaysaa marka heerka Radon-ka sareeyo iyo marka qofka uu muddo dheer u nuglaado. Radon waa sababta koowaad ee kansarka sanbabada ee dadka aan waligood sigaar cabbayn, wuxuuna sidoo kale kordhiyaa khatarta dadka sigaarka caba. Maraykanka gudaheeda, waxaa lagu qiyaasaa in Radon-ku sababo qiyaastii 21,000 oo dhimasho oo kansarka sanbabada ah sanad walba. Carruurta waxay halis u sii noqon karaan sababtoo ah sanbabadooda oo ka duwan dadka waaweyn dhanka qaabka iyo cabbirka, iyo neefsasho degdeg ah.

Hay'adda Ilaalinta Deegaanka ee Mareykanka (EPA) waxay ku talineysaa in tallaabo la qaado si loo yareeyo Radon haddii heerkiisu gaaro ama ka bato 4 picocuries halkii litir (pCi/L) Minnesota gudaheeda:

- Heerarka Radon-ka ee gudaha celcelis ahaan waxay saddex jeer ka badan yihiin celceliska heerka qaranka
- Qiyaastii 2 ka mid ah 5 guri oo la tijaabiyey ayaa kor uga baxay heerka tallaabada
- Daraasad uu sameeyey MDH sanadkii 2014, waxay muujisay in **47%** ee xarumaha daryeelka carruurta ee qoyska oo la tijaabiyey (465 xarumood) ay ka sarreeyeen heerka tallaabada

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Sidee looga baaraa Raadon guryaha +daryeelka carruurta?

Milkiilaha ama kiraystaha guri deggenaansho ah wuxuu iskiis u tijaabin karaa Radon haddii uu yahay qofka ku qoran milkiyadda, qandaraaska, ama heshiiska kirada. Waxaa lagama maarmaan ah in la tijaabiyo ugu yaraan hal qol oo ku yaalla dabaqa ugu hooseeya ee guriga, kaas oo loo adeegsado daryeelka carruurta. Waxaad ka iibsaa kartaa qalab tijaabo oo la oggolyahay oo laga helo waaxyo caafimaad oo badan oo maxalli ah, dukaamada qalabka guriga, ama sheybaarrada. Ha isticmaalin aaladaha elektaroonigga ah ee caadiga ah ee qiimahoodu yahay qiyaastii \$100–200, sababtoo ah inta badan qalabkan lama oggola. Sidoo kale, xirfadlayaal haysta shatiga Radon ayaa guriyaasha u samayn kara tijaabo.

Waxaa jira laba nooc oo tijaabo ah: tijaabada muddo-gaaban (maalmo kooban) iyo tijaabada muddo-dheer (ugu yaraan 3 bilood). Marka la sameynayo tijaabada muddo-gaaban, waa in la ilaaliyo xaalado guri xiran, taas

oo ka dhigan in daaqadaha iyo albaabada bannaanka la xiro (albaabada waa la furi karaa si caadi ah loo galo ama looga baxo). Laakiin marka la sameynayo tijaabo muddo-dheer ah, xaaladahaas guri xiran looma baahna. Tijaabi ugu yaraan 5-kii sanaba mar, ama horay uga tijaabi haddii ay jiraan isbeddello saameyn kara heerka Radon-ka ama haddii la rakibo nidaam Radon.

Waxaa ugu fiican in Radon lagu tijaabiyo maalmaha ay xarunta daryeelka carruurta shaqaynayso, iyadoo la adeegsanayo tijaabo muddo-gaaban ah (2 ilaa 5 maalmood). Haddii natiijada tijaabadan hore ay noqoto inta u dhaxaysa 2.0 ilaa 3.9 pCi/L, waxaa habboon in la sameeyo tijaabo dheeri ah. Sidoo kale, tixgeli inaad dib u tijaabiso xilliga jiilaalka haddii tijaabada hore lagu sameeyay bannaanka xilliga kuleylka.

Haddii tijaabada hore ay gaarto ama ka badato 4 pCi/L, waa in si degdeg ah loo sameeyo tijaabo kale oo xigta (ama toos loogu dhaqaaqo yareynta Radon-ka). Tijaabadan xigta waxaa lagu samayn karaa tijaabo muddo-gaaban ah ama tijaabo muddo-dheer ah (in ka badan 3 bilood). Haddii celceliska laba tijaabo oo gaagaaban ama hal tijaabo oo dheer uu gaaro ama ka bato 4 pCi/L, waa in tallaabo la qaadaa si heerarka Radon loo yareeyo. Si kale, xirfadle Radon ah ayaa samayn kara tijaabada xigta iyadoo la adeegsanayo qalab cabbira Radon si isdaba joog ah, kaasoo la socda heerarka saacaddii. Tijaabadan waxay muujin kartaa haddii heerarka Radon ay sare u kacayaan inta lagu guda jiro saacadaha ay xarunta carruurtu shaqeyso. Haddii heerarku hooseeyaan marka carruurtu joogaan, waxaa laga yaabaa inaanay lagama maarmaan ahayn in la sameeyo yareynta Radon, laakiin weli waa in la tixgeliyaa yareynta Radon-ka si loo ilaaliyo dadka ku nool guriga.

Sidee loo yareeyaa heerarka Radon-ka?

Haddii heerka Radon uu gaaro ama ka bato 4 pCi/L, waa in aad kireysataa xirfadle haysta shatiga yareynta Radon si uu hoos ugu dhigo heerka Radon-ka. Yareynta Radon ee guryaha badanaa waxay ku lug leedahay rakibidda tuubo hawo-mareen ah iyo marawaxad, kuwaas oo hawada ka soo jiida ciidda kuna sii daaya bannaanka, si ay uga hortagaan Radon inuu soo galo gudaha dhismaha.

Ujeeddada nidaamka yareynta Radon-ka waa in la dhimo heerarka Radon ee gudaha guriga si ay uga hooseeyaan heerka tallaabada ee ah 4.0 pCi/L. Nidaamyo badan ayaa awood u leh inay hoos u dhigaan heerarka Radon ilaa ka yar 2.0 pCi/L, sidaas darteed waxaa habboon in la tixgeliyo yareynta Radon xitaa marka heerarku u dhexeeyaan 2 ilaa 3.9 pCi/L. Kadib marka nidaamka yareynta la rakibo, waa in lagu sameeyaa tijaabo 30 maalmood gudahood si loo xaqiijiyo in Radon-ku si dhab ah hoos ugu dhacay. Intaa kadib, waxaa lagu talinayaa in dib loo tijaabiyo qiyaastii 2-dii sanaba mar, ama xilli hore haddii ay dhacaan isbeddello waaweyn oo saameyn kara heerarka Radon-ka. Isbeddelladaas waxaa ka mid noqon kara dib-u-dhis weyn, wax ka beddelka nidaamyada kuleylka, hawo-wareejinta ama qaboojinta, ama furitaan cusub oo u dhow ciidda. Tijaabooyinkan dib-u-eegista ah waxay xaqiijinayaan in heerarka Radon ay weli hooseeyaan.

Ilooyinka

- Qalabyada tijaabada Radon oo la dhimay qiimahooda waxaa heli kara milkiilayaasha iyo kiraystayaasha iyada oo loo marayo waaxyaha caafimaadka qaarkood iyo shirkadda [AirChek \(mn.radon.com\)](https://www.mn.radon.com).

- Xarumaha daryeelka carruurta waxay u qalmi karaan deymo iyo caawimo dhaqaale oo kale si ay u helaan yareynta Radon [financial assistance for radon mitigation](https://www.health.state.mn.us/communities/environment/air/radon/financial.html) (<https://www.health.state.mn.us/communities/environment/air/radon/financial.html>).
- MDH waxay hayaan liisaska xirfadlayaasha Radon ee shatiga haysta [licensed radon professionals](https://www.health.state.mn.us/communities/environment/air/radon/findprof.htm) (<https://www.health.state.mn.us/communities/environment/air/radon/findprof.htm>).
- MDH waxay si bilaash ah u fuliyaan kormeerida nidaamyada yareynta Radon ee dhawaan la rakibay.
- MDH waxay bixisaa fasallo waxbarasho oo bilaash ah oo loogu talagalay daryeelka carruurta ee qoysaska [continuing education classes](https://www.health.state.mn.us/communities/environment/air/iaqtraining.html) (<https://www.health.state.mn.us/communities/environment/air/iaqtraining.html>).
- Wixii faahfaahin dheeraad ah, booqo bogga Radon ee [MDH radon](https://www.health.state.mn.us/communities/environment/air/radon/index.html) (<https://www.health.state.mn.us/communities/environment/air/radon/index.html>).

Su'aalaha la xiriiira mashruuca casriyeynta xeerarka daryeelka carruurta waxaa loo gudbin karaa Wasaaradda Adeegyada Aadanaha ee Minnesota [MN Department of Human Services](https://mn.gov/dhs/partners-and-providers/licensing/child-care-and-early-education/child-care-regulation-modernization.jsp) (<https://mn.gov/dhs/partners-and-providers/licensing/child-care-and-early-education/child-care-regulation-modernization.jsp>). Barnaamijyada daryeelka carruurta ee bulshada ku saleysan (oo sidoo kale loo yaqaan "special family child care") ee ka hawlgala meel aan ahayn guri waa inay akhriyaan xaashida xaqiiqada ah: *'Radon ee Xarumaha Daryeelka Carruurta iyo Dhismayaasha aan Degganaanshaha ahayn'*.

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Si aad u hesho macluumaadkan iyadoo qaab kale ah, wac: 651-201-4933