

DAIM NTAUV QHIA TXOG KEV NPAJ ROV QAB MUS KAWM NTAUV

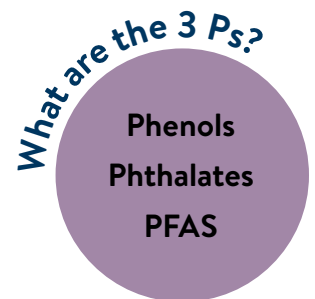
Lub sijhawm rov qab mus kawm ntauv yog ib lub sijhawm zoo los xav txog kev yuav thiab siv cov khoom uas muaj kev nyab xeeb. Kev siv cov khoom muaj kev nyab xeeb yog ib qho tseem ceeb vim nws pab txo tau koj tus menyuam qhov kev chwv raug tshuaj phom sij. Kev chwv raug qee yam tshuaj khesmis tej zaum ua teeb meem tau rau kev noj qab haus huv.

Kev chwv raug tshuaj khesmis phom sij tej zaum yuav muaj kev txhawj ntau dua rau cov menyuam yaus:

- Menyuam yaus nyiam kov khoom thiab muab tes tso rau hauv qhov ncauj, ces ua rau lawv muaj feem raug tshuaj phom sij uas tawm ntawm cov khoom siv hauv tsev thiab cov khoom ua si, ces sib xyaw rau cov plua plav hauv tsev.
- Menyuam yaus lub cev tseem me thiab tseem tab tom loj hlob, yog li muaj kev phom sij tau yooj yim dua rau lawv txoj kev noj qab haus huv.
- Menyuam yaus haus dej, noj mov, thiab ua pa ntau dua piv rau lawv lub cev qhov hnyav thaum muab piv rau cov neeg laus.
- Kev raug qee yam tshuaj khesmis phom sij ua tau rau menyuam yaus muaj teeb meem ntawm txoj kev loj hlob qeeb.

Peb hom tshuaj khesmis phom sij uas yuav tsum zam (3 Ps)

Phenols, Phthalates, thiab PFAS yog cov tshuaj hu ua “3 Ps.”



- **Phenols:** Ntau hom phenols raug suav tias yog cov tshuaj uas cuam tshuam rau cov roj ntsha hormones hauv lub cev (endocrine disrupting chemicals). Qhov no txhais tau tias nws hloov lossis cuam tshuam txoj kev ua hauj lwm ntawm lub cev cov roj ntsha hormone. Phenols muaj nyob hauv tej yam khoom xws li cov tshuaj tsw qab hauv tsev (air fresheners), cov tshuaj txuag kom txhob tsw phem (deodorizers), cov kaspoom hlau, thiab cov taub lossis thawv yaas. Bisphenol A yog ib hom phenol uas ua rau muaj kev txhawj xeeb txog menyuam yaus kev noj qab haus huv. Kev tshawb fawb qhia tias BPA tej zaum yuav cuam tshuam rau kev loj hlob rau menyuam hauv plab thiab menyuam mos, lub siab, lub raum thiab lub qog thyroid.
- **Phthalates:** Phthalates yog ib pawg tshuaj khesmis uas siv rau tej yaas kom muag thiab ruaj khov. Kuj muaj nyob rau hauv tej khoom siv tu cev thiab lwm yam khoom siv ntau heev. Phthalates raug suav tias yog cov tshuaj uas cuam tshuam rau cov roj ntsha hormone hauv lub cev (endocrine disrupting). Phthalates muaj nyob hauv tej yaas, tshuaj zawv plaub hau, tshuaj tsw qab rau lub cev (deodorant), roj pleev kom nplua (lubricating oils), tshuaj tsw qab, tshuaj txuag plaub hau, thiab tshuaj pleev rau tes. Qee yam teeb meem cuam tshuam kev noj qab haus huv uas los ntawm phthalates muaj xws li menyuam yug los muaj kev tsis zoo ntawm lub cev, ua rau cov uas muaj mob hawb pob mob heev dua, thiab mob eczema ntawm txheej tawv.
- **PFAS:** PFAS yog ib pawg tshuaj khesmis phom sij uas siv dav heev los tau ntau caum xyoo lawm. PFAS ruaj khov heev thiab tsis lwj yaj yooj yim. Qee hom PFAS sib sau nyob hauv tib neeg lub cev thiab nyob tau ntau xyoo tiam sis yog tsis chwv raug PFAS ntiv lawm ces cov tshuaj kuj tuaj yeem txo qis zuj zus tau. Cov teeb meem kev noj qab haus huv uas muaj kev txhawj xeeb tshaj plaws los ntawm PFAS muaj xws li kev cuam tshuam rau lub cev kev tiv thaiv kab mob (immune system), xws li ua rau cov tshuaj tiv thaiv kab mob (vaccines) ua haujlwm tsis zoo, kev hloov hauv kev ua haujlwm ntawm lub siab (liver), xws li roj cholesterol lossis cov cim qhia tias lub siab raug cuam tshuam ntawd nce siab, thiab ua rau menyuam yug los lub cev tsis hnyav xws li qhov tsim nyog.

Xeev Minnesota tab tom txo kev paug thiab kev raug PFAS nrog cov cai lij choj uas txwv tsis pub siv PFAS hauv qee yam khoom, suav nrog rau cov khoom siv ntim zaub mov, cov tshuaj tua hluav taws (firefighting foam), thiab qee yam khoom rau tib neeg siv. Amara's Law, uas pib siv thaum xyoo 2025, txwv PFAS hauv 11 pawg khoom siv xws li cov lauj kaub tais diav ua noj, cov tshuaj pleev tu ib ce (cosmetics), cov khoom ntxuav tsev, thiab khaub ncaws thiab ntaub (textiles). Txoj cai no yuav tshem tawm txhua yam kev siv PFAS uas tsis tsim nyog hauv cov khoom siv kom tau tag nrho thaum txog xyoo 2032.

Cov kauj ruam yooj yim pab txo kom qis kev chwv raug tshuaj khesmis phom sij hauv tej khoom siv.

- Thaum yuav cov khoom los siv hauv tsev, xav txog kev xaiv cov khoom uas tsis muaj tshuaj khesmis phom sij. Qee yam khoom muaj daim ntawv lo hais tias “EPA Safer Choice,” uas txhais tias yam khoom ntawd muaj kev nyab xeeb dua. Nyeem cov ntawv lo ntawm cov khoom kom paub tias tsis muaj tshuaj phom sij thiab zam cov khoom uas tej zaum muaj PFAS xws li cov khoom uas tiv thaiv tsis lo qias (stain-resistant), tiv thaiv tsis ntub dej (water-resistant) los yog muaj txheej uas tsis lo tej zaub mov (nonstick coating).
- Nquag nqus plua plav thiab so tej chav chaw hauv tsev nrog ib daim ntaub ntub dej los mus txo plua plav hauv tsev uas tej zaum muaj tshuaj phom sij tawm ntawm cov khoom siv thaum cov khoom ntawd qub zuj zus lossis puas zuj zus.
- Nco ntsoov muab cov khoom uas muaj tshuaj khesmis phom sij pov tseg kom raug raws cai. Qhov no yuav pab txo kev chwv raug tshuaj phom sij yav tom ntej thiab pab tiv thaiv kev paug tshuaj rau ib puag ncig.

Kev Pab Cuam Ntxiv

- [EPA | Children Are Not Little Adults \(https://www.epa.gov/children/children-are-not-little-adults\)](https://www.epa.gov/children/children-are-not-little-adults)
- [MDH | Reducing Exposures: Per- and Polyfluoroalkyl substances \(PFAS\) \(https://www.health.state.mn.us/communities/environment/hazardous/docs/pfassummary.pdf\)](https://www.health.state.mn.us/communities/environment/hazardous/docs/pfassummary.pdf)
- [MDH | Bisphenol A \(https://www.health.state.mn.us/communities/environment/childenvhealth/docs/bpa.pdf\)](https://www.health.state.mn.us/communities/environment/childenvhealth/docs/bpa.pdf)
- [MDH | Phenols \(https://www.health.state.mn.us/communities/environment/biomonitoring/docs/enpheninfohkmn.pdf\)](https://www.health.state.mn.us/communities/environment/biomonitoring/docs/enpheninfohkmn.pdf)
- [MDH | Phthalates \(https://www.health.state.mn.us/communities/environment/biomonitoring/docs/enphthinfohkmn.pdf\)](https://www.health.state.mn.us/communities/environment/biomonitoring/docs/enphthinfohkmn.pdf)
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- [MPCA | 2025 PFAS prohibitions \(https://www.pca.state.mn.us/air-water-land-climate/2025-pfas-prohibitions\)](https://www.pca.state.mn.us/air-water-land-climate/2025-pfas-prohibitions)

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