

HPV, Cervical Cancer and Women's Health

For Listuguj, Gesgapegiag and Gespeg Community



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Objectives

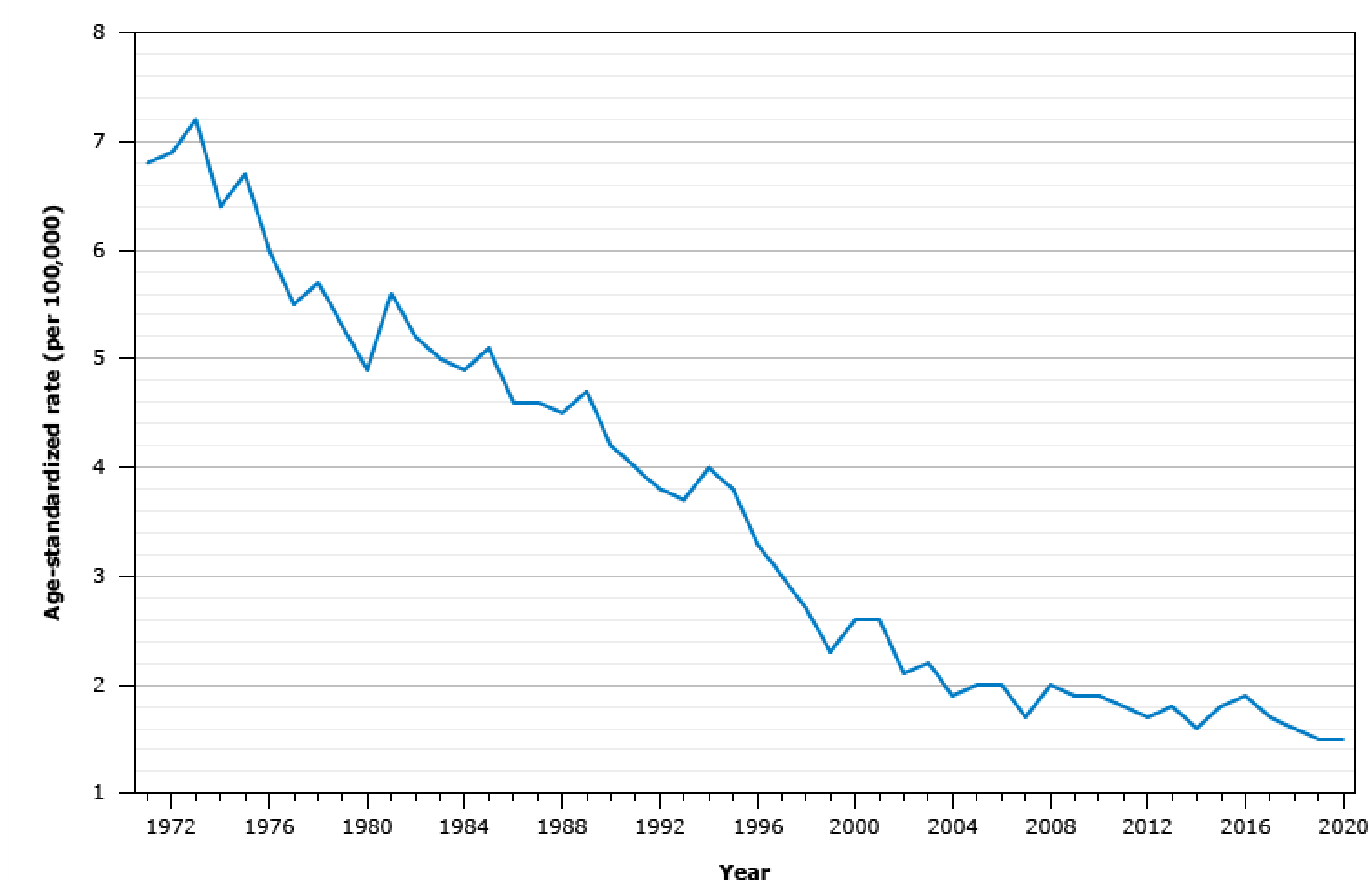
- **Cervical cancer risk**
- **HPV infections and cancer risk**
- **HPV screening**
- **HPV vaccination**
- **HPV testing procedure**
- **INESS GUIDELINES**
- **Self-sampling**
- **Other infections**
- **Colposcopy (overview)**

Cervical Cancer Screening: Important Issue

- In Canada, approximately **1 650 women will be diagnosed with cervical cancer in 2025 and 430 will die of this condition.** *(Source : Société Canadienne du cancer 2025).*
- In Canada, **1 in every 168 women** will develop cervix cancer in her lifetime.
- Global incidence has greatly diminished over past decades **BUT** current stagnation and even slight increase in incidence. *(Source : Société Canadienne du cancer 2025)*
- Worldwide : fourth most common cancer in females.
- The most common histologic types of cervical cancer are squamous cell carcinoma (SCC; 70 percent) and adenocarcinoma (25 percent).
- First Nation, Inuit and Métis women continue to have less favorable results for cervix cancer incidence than other Canadian women.
- Some have 3x incidence and 4x mortality statistics for cervix cancer.
- Geographic obstacles to screening and treatment. *(Source : Partenariat Canadien contre le cancer 2020).*

REMEMBER: With the help of screening, Cervix cancer is almost always avoidable!.

Cervical cancer mortality trends (Australia; 1971 to 2020)



Age-standardized mortality rates for cervical cancer, 1971 to 2020.

Based on Australian Institute of Health and Welfare material from: *Cancer data in Australia*. Available at:
<https://www.aihw.gov.au/reports/cancer/cancer-data-in-australia/data> (Accessed on June 2, 2023). UpToDate®

What is HPV ?

- Human papillomaviruses (**HPV**) are double-stranded DNA viruses that only infect humans.
 - There are more than 200 types of HPV. Differ in their tissue preference.
 - Are transmitted from one epithelial surface to another. Can be sexually transmitted.
 - Most infections typically resolve spontaneously within 12 months.
 - Persistent infection with **high-risk HPV types** can increase the risk of precancerous or cancerous lesions **BUT** having an HPV infection doesn't mean that you will develop cervical cancer.
 - Human papillomavirus (HPV) plays a central role in the development of cervical neoplasia and can be detected in 99.7 percent of cervical cancers. **ALMOST 100%!**
 - Most sexually active people will be exposed in their lifetime (≈90%)
-

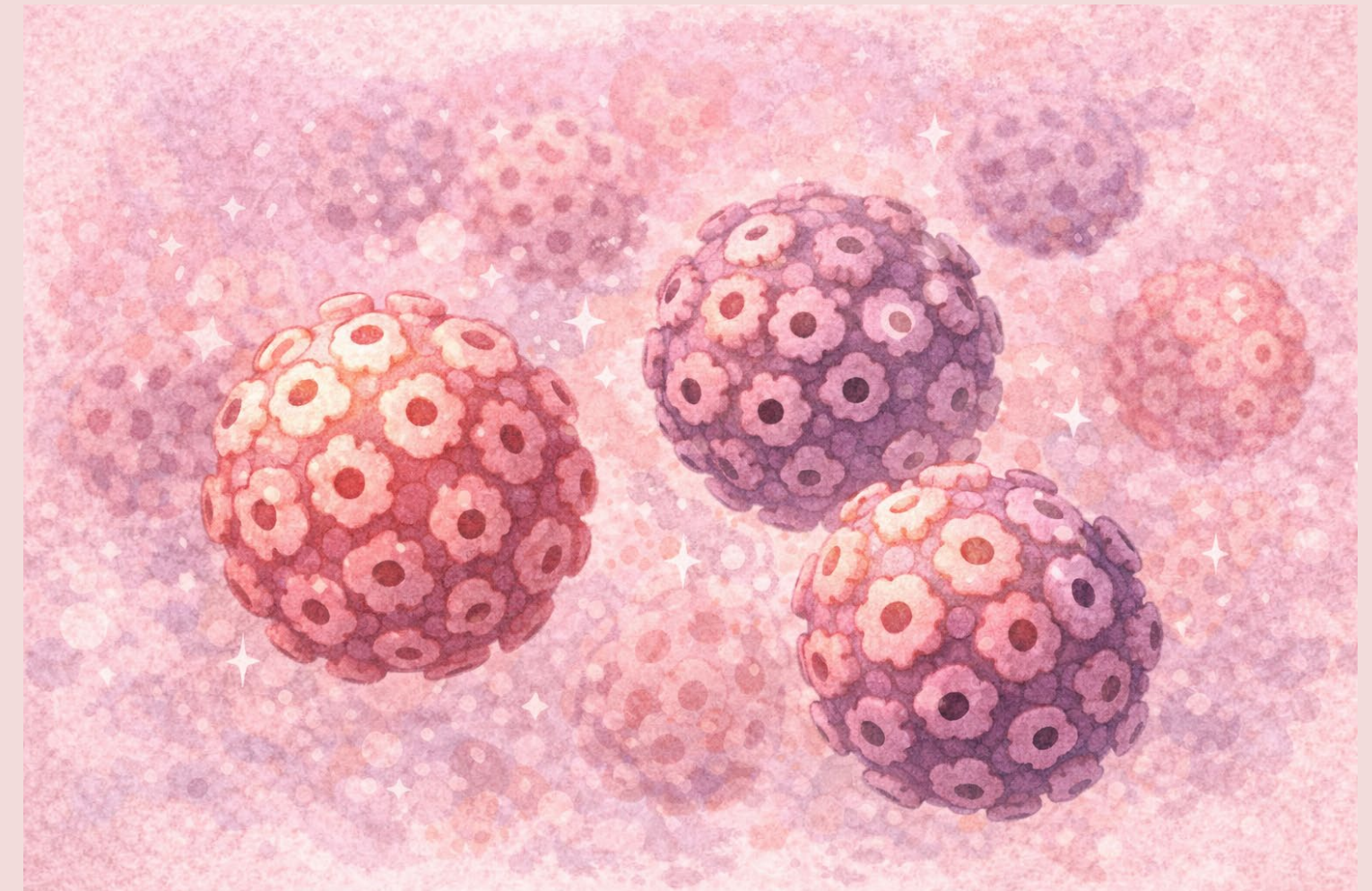


Image générée par IA

Contribution of carcinogenic HPV genotypes and CIN 3+ progression risk for progression to CIN grade 3 or worse

Carcinogenic HPV type	Percent of cervical cancers	9-year risk of progression to CIN3+ of incident HPV infection	Risk group
16	60.3	6.3	16
18	10.5	3.0	18/45
45	6.1	2.2	18/45
33	3.7	4.5	16-related
31	3.6	2.2	16-related
52	2.7	2.2	16-related
58	2.2	1.9	16-related
35	2.0	2.8	16-related
39	1.6	1.1	Other
51	1.2	1.1	Other
59	1.1	0.9	Other
56	0.9	0.8	Other
68	0.6	1.0	Other

This table summarizes the proportion of cancers caused by 13 HPV types and the risk of progression from infection to CIN 3+.

UpToDate contributors note that other subtypes of HPV (eg, HPV 82) may also contribute to cervical cancers, but these subtypes are rare.

CIN: cervical intraepithelial neoplasia; HPV: human papillomavirus.

Reproduced with permission from: Wolters Kluwer Health, Inc.: Massad LS, Clarke MA, Perkins RB, et al. Applying results of extended genotyping to management of positive cervicovaginal human papillomavirus test results: Enduring guidelines. J Low Genit Tract Dis 2025; 29(2):134-143. Copyright © 2025 The Authors. Published by Wolters Kluwer Health, Inc. on behalf of the American Society for Colposcopy and Cervical Pathology. <https://journals.lww.com/jlgttd/pages/default.aspx>.

Why HPV testing for screening?

HPV testing: better detection .

Detection of virus hopefully before precancerous lesions.

Better sensitivity than PAP smear (To ensure that most cases of a disease are caught, making it excellent for screening.)

HPV testing: less false positive results so less unnecessary examinations/colposcopy.

Detects disease at earlier stage.

Advantages:

Less testing if result negative.

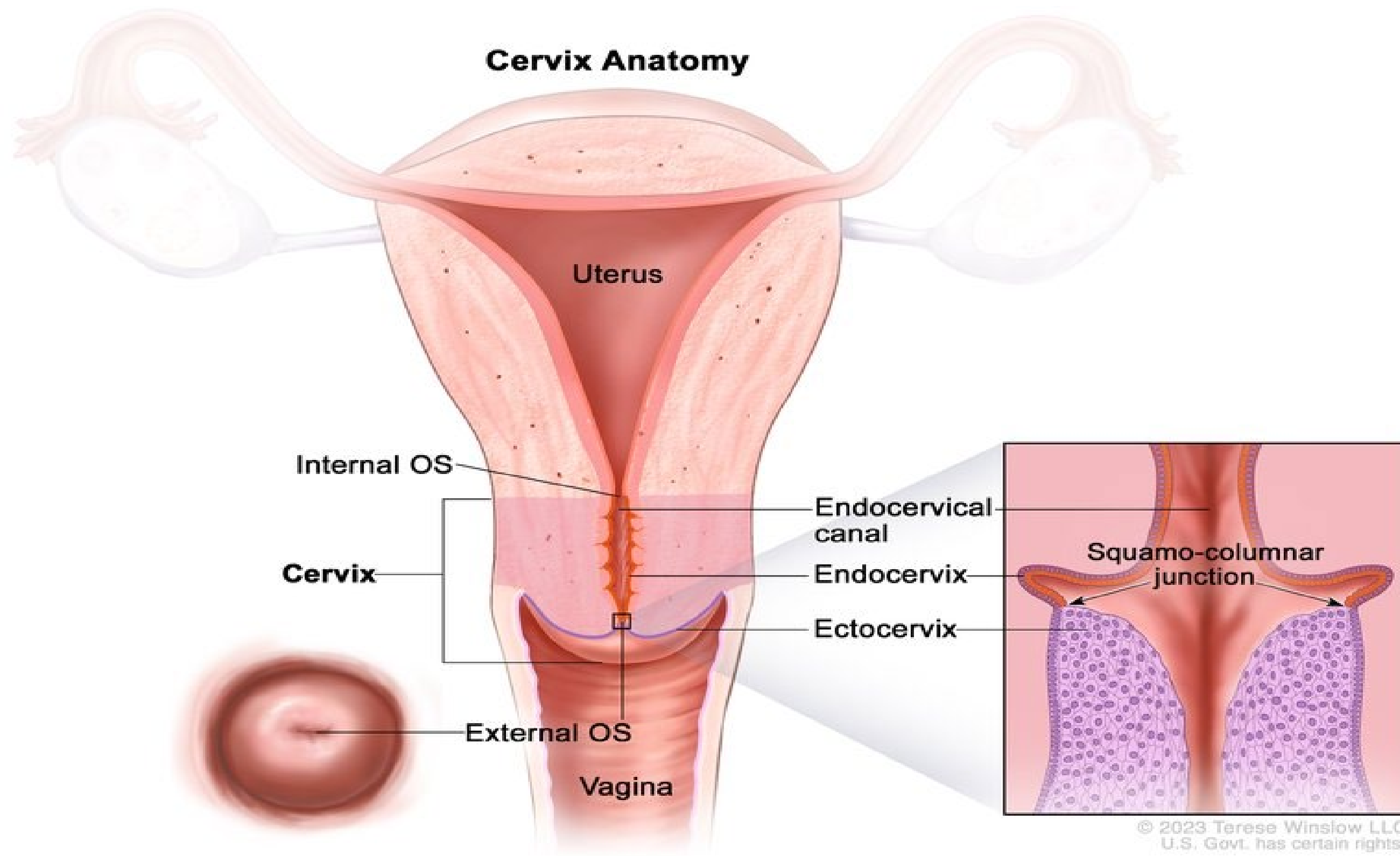
Follow-up testing more focused.

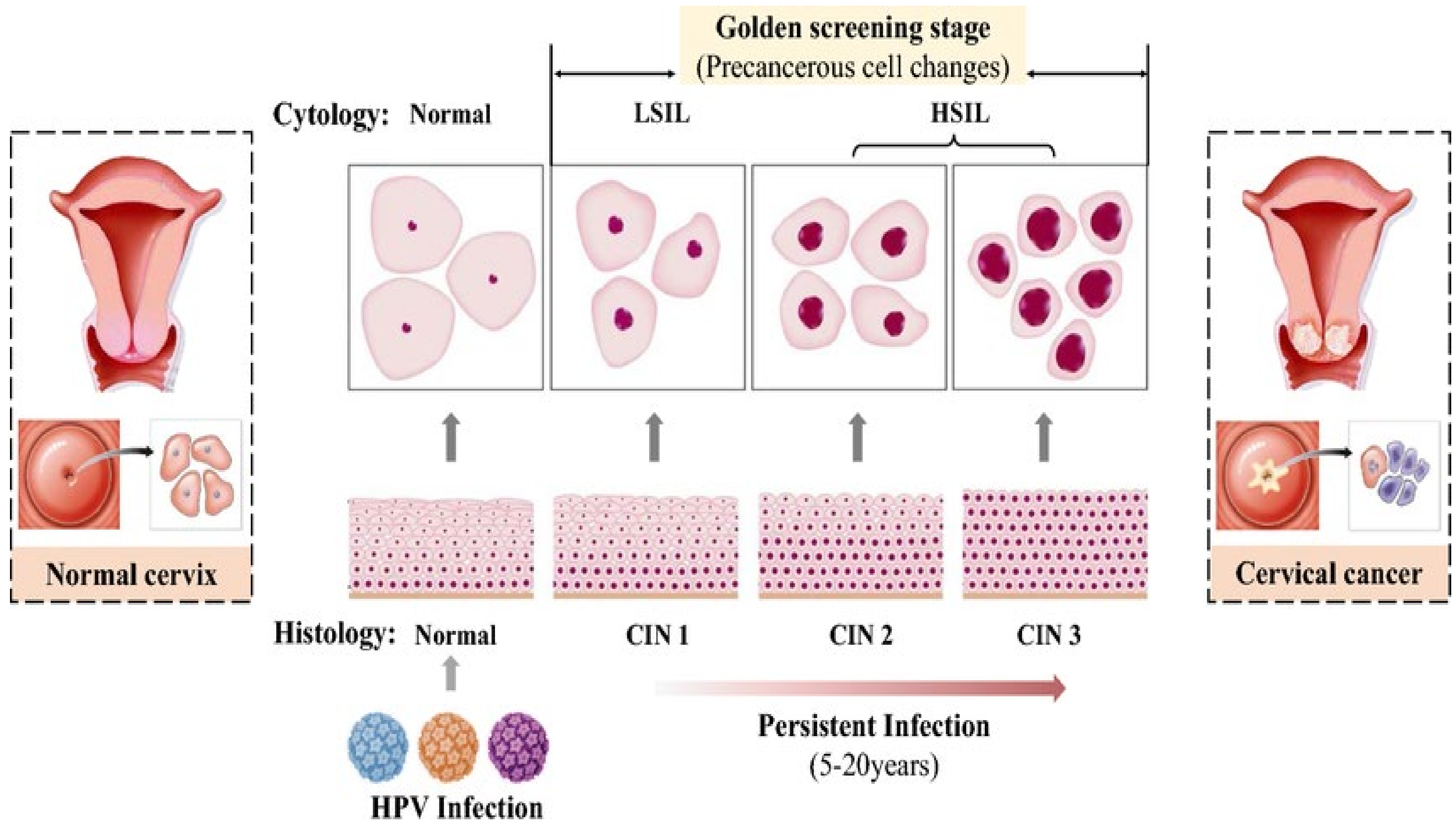
Better long-term prevention.

A very low risk of disease if test negative and for a longer period.

Early cervical cancer is frequently asymptomatic, underscoring the importance of proper screening.

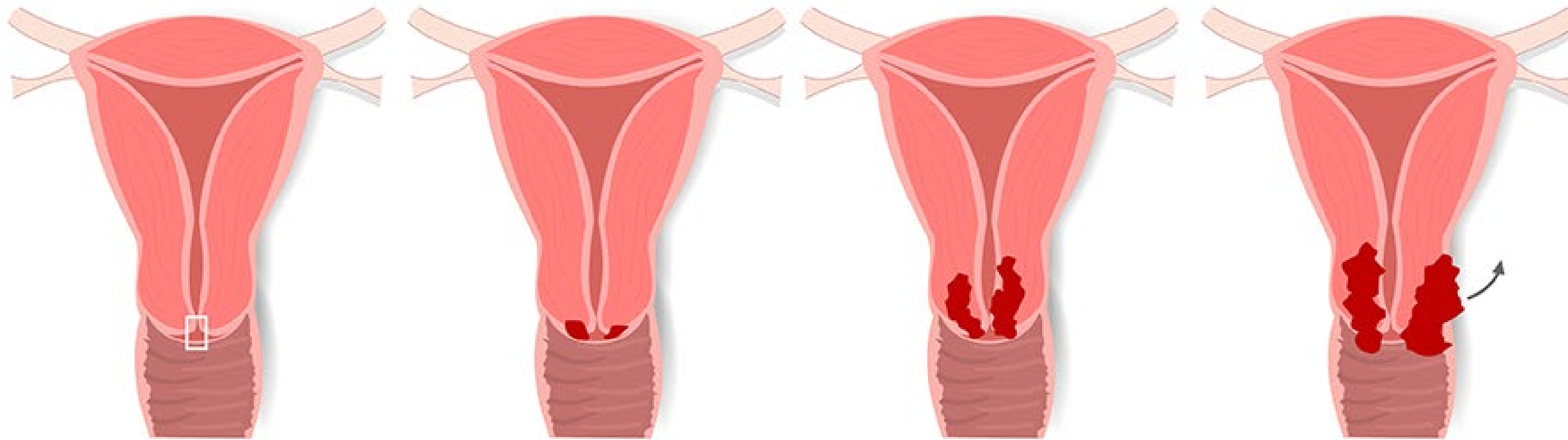






HPV infection persists: initial infection to development of high-grade CIN and, finally, invasive cancer takes an average of 15 years (more rapid courses have been reported).

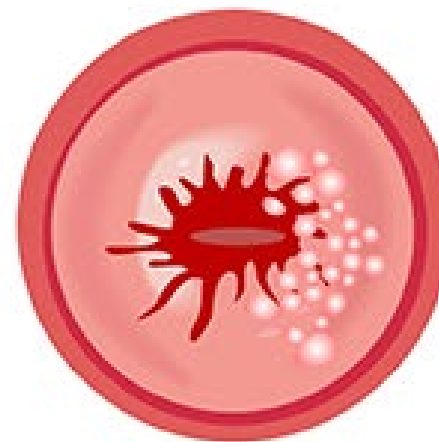
Cervical Cancer



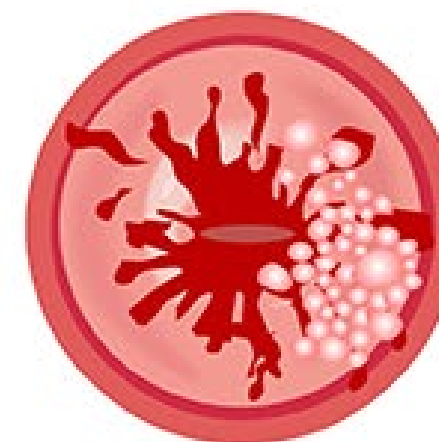
Normal



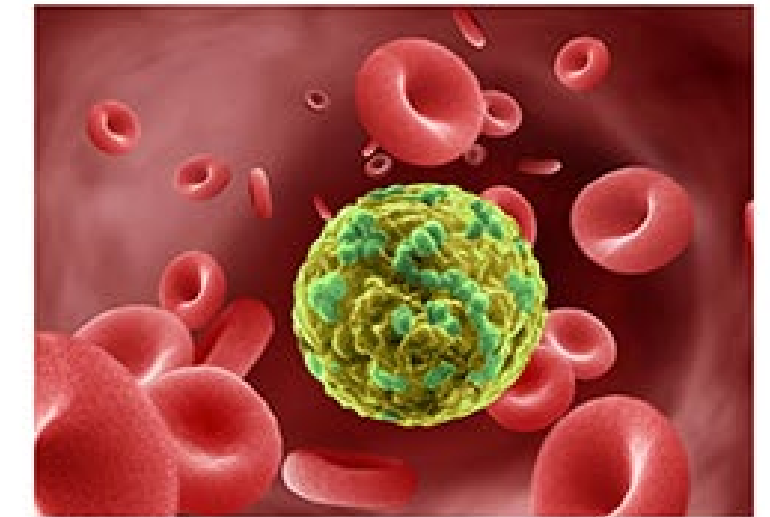
Stage 1



Stage 2



Stage 3



**Spreads to lungs,
intestines, bladder,
and other organs**

Stage 4

Risk and protective factors in cervical cancer

Sexual activity:

- Genital, oral and anal.
- **HPV-related** — In almost all cases, cervical cancer is due to persistent human papillomavirus (HPV) infection. Subtypes HPV 16 and 18 are found in over 77 percent of all cervical cancers

Smoking:

- Smoking = HPV infection persistence.
- Cigarette smoking – Smoking is associated with an increased risk of SCC of the cervix. (not of adenocarcinoma)
- In one study, smoking increased the risk of SCC by approximately 50 percent (RR 1.50, 95% CI 1.35-1.66)

Immunosuppression

Human immunodeficiency virus (HIV):

- Weakened the immune system

Genetics – No well-established model of a genetic basis for cervical cancer.

Multiparity, History of sexually transmitted infections (STIs), Diethylstilbestrol (DES), High estrogen levels



PROTECTIVE FACTORS

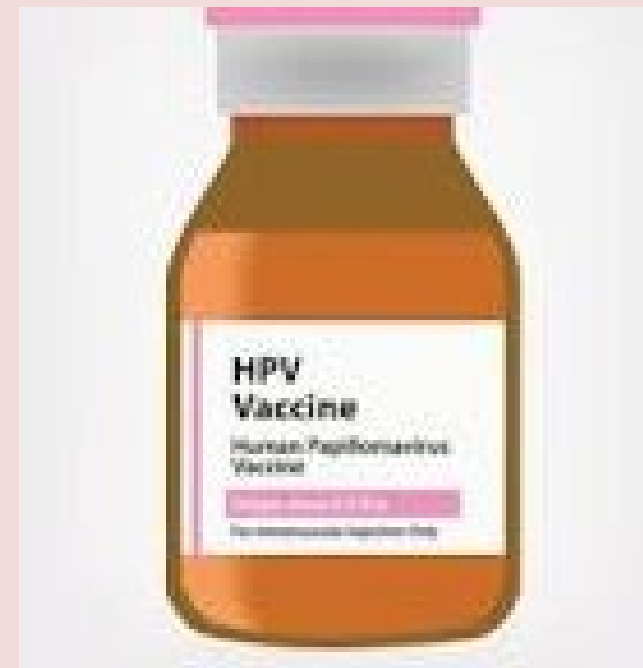
Avoiding unprotected sexual activity:

- Barrier protection.
- Sexually transmitted diseases (STDs) prevention.

Smoking cessation.

HPV vaccination:

- Vaccines that protect against HPV infection greatly reduce the risk of cervical cancer.
- Since 2008: Quebec vaccination program.
- Girls and boys 4th grade. (boys since 2016).
- The vaccination calendar = Gardasil-9 then 6 months later Cervarix.
- The vaccine is less effective in people already infected at the time of vaccination.
- Recent studies **HOWEVER**: vaccines could prevent the recurrence of anal lesions in men aged 26 and under who were already infected. No data for men over 26 [Vaccins contre les infections par les virus du papillome humain \(VPH\) | Gouvernement du Québec \(quebec.ca\)](#)
- A history of cervical dysplasia or genital warts **is not a contraindication** to vaccination. While vaccination does not have a therapeutic effect data suggest that HPV vaccination is associated with a lower rate of CIN recurrence.



Impact of vaccination On pre-cancerous lesions and cancer.

Impact more significant if vaccination before 17 years old.

Less high-grade lesions on patients less than 24 years old.

Less cervical lesions of all grades in patients vaccinated in elementary school.

Decreased prevalence of HPV 16 AND 18 in young females less than 24.

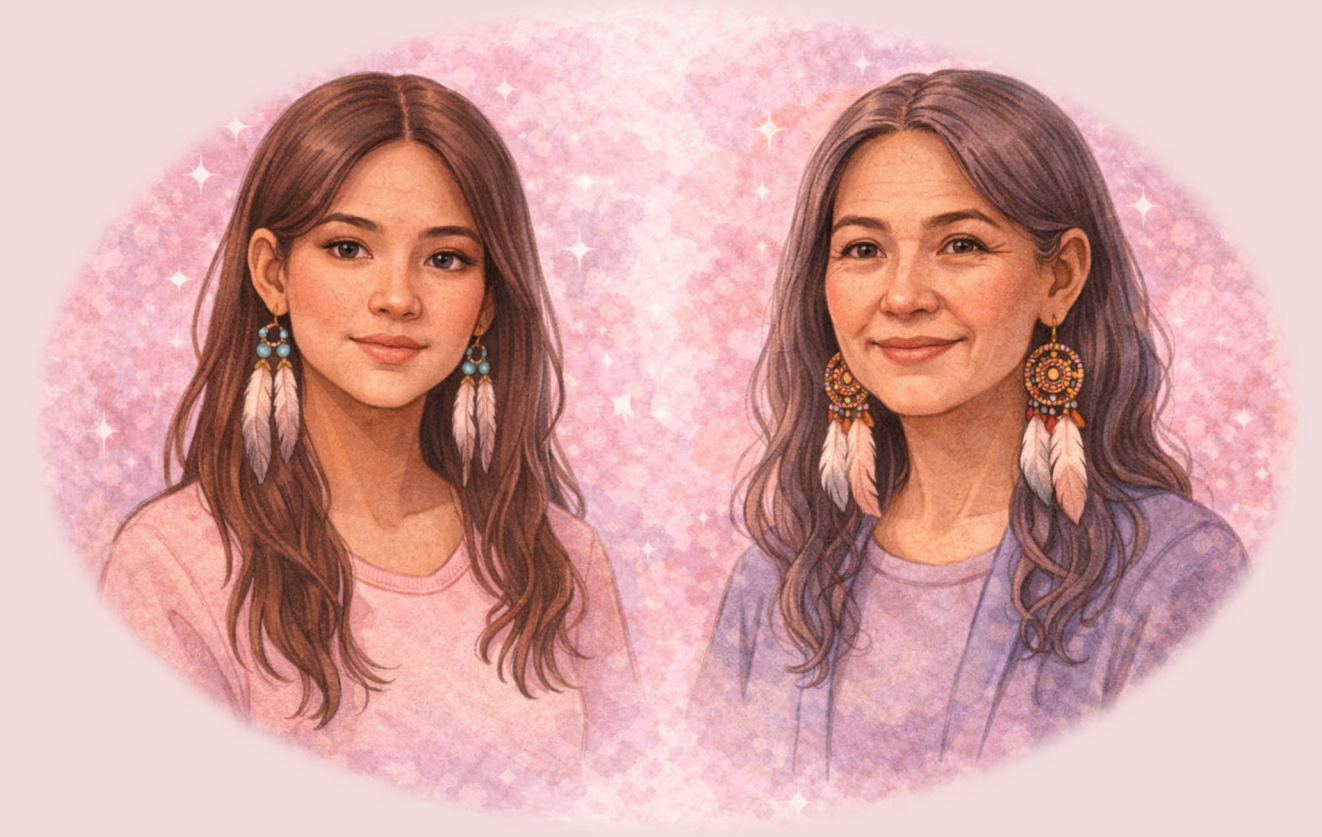
Same decreased prevalence of HPV 6, 11, 16 AND 18 in young women vaccinated with Gardasil 4 (even more if vaccinated early).

La vaccination a entraîné une diminution de l'incidence de cancers du col de l'utérus. Cette diminution est plus importante chez les personnes vaccinées avant l'âge de 17 ans.

CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Cervical cancer screening pathway, INESSS recommends:

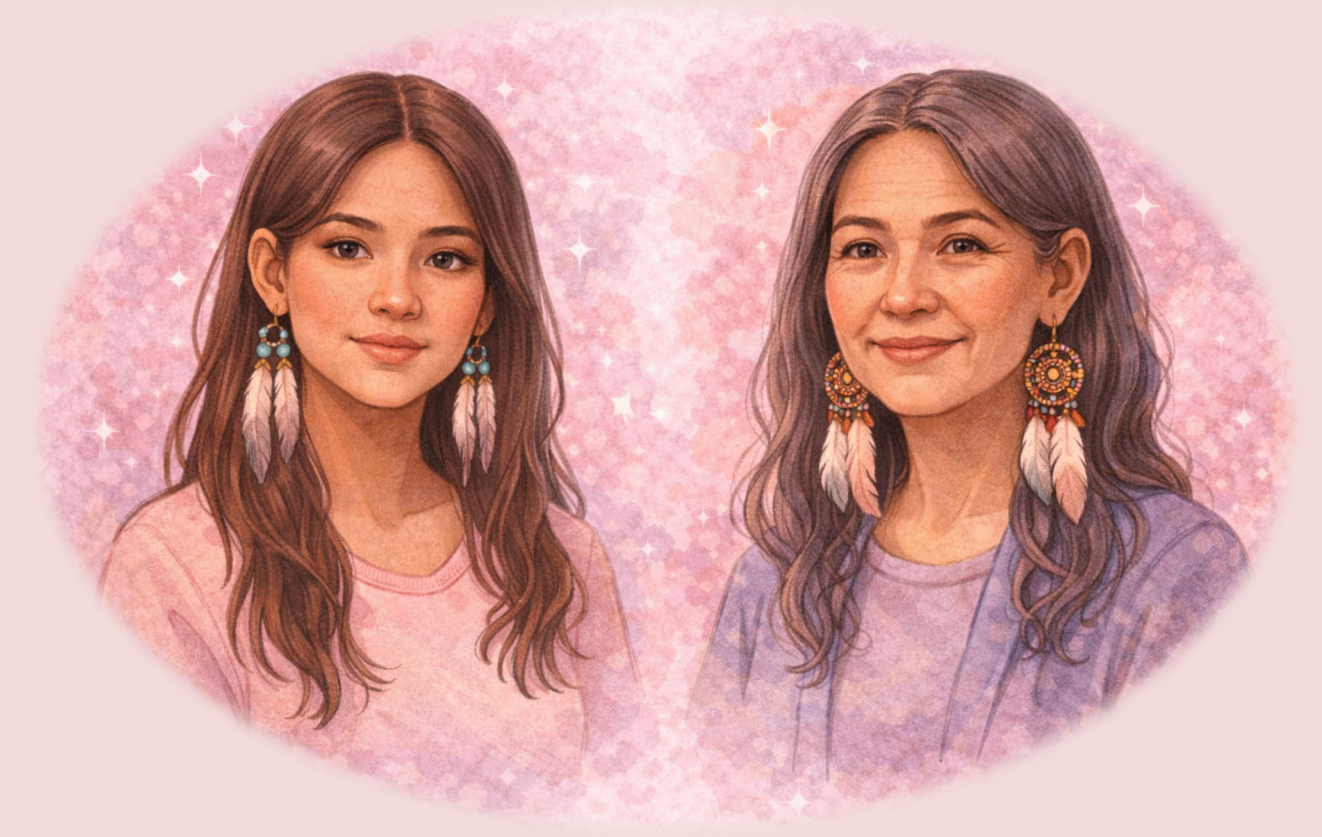
- Initiating cervical cancer screening with the HPV test at age 25.
- Stopping HPV test screening at age 65.
- HPV test screening at 5-year intervals in immunocompetent patients.
- HPV test screening at 3-year intervals in immunocompromised patients.
- Cytology should be performed on everyone who tests positive for HPV, regardless of the genotype.
- The liquid medium specimen makes it possible to perform a cytological examination on the same laboratory sample as that used for the HPV test. Otherwise, an HPV-positive person will need to be called to come back for cytology.



CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Cervical cancer screening pathway, INESSS recommends:

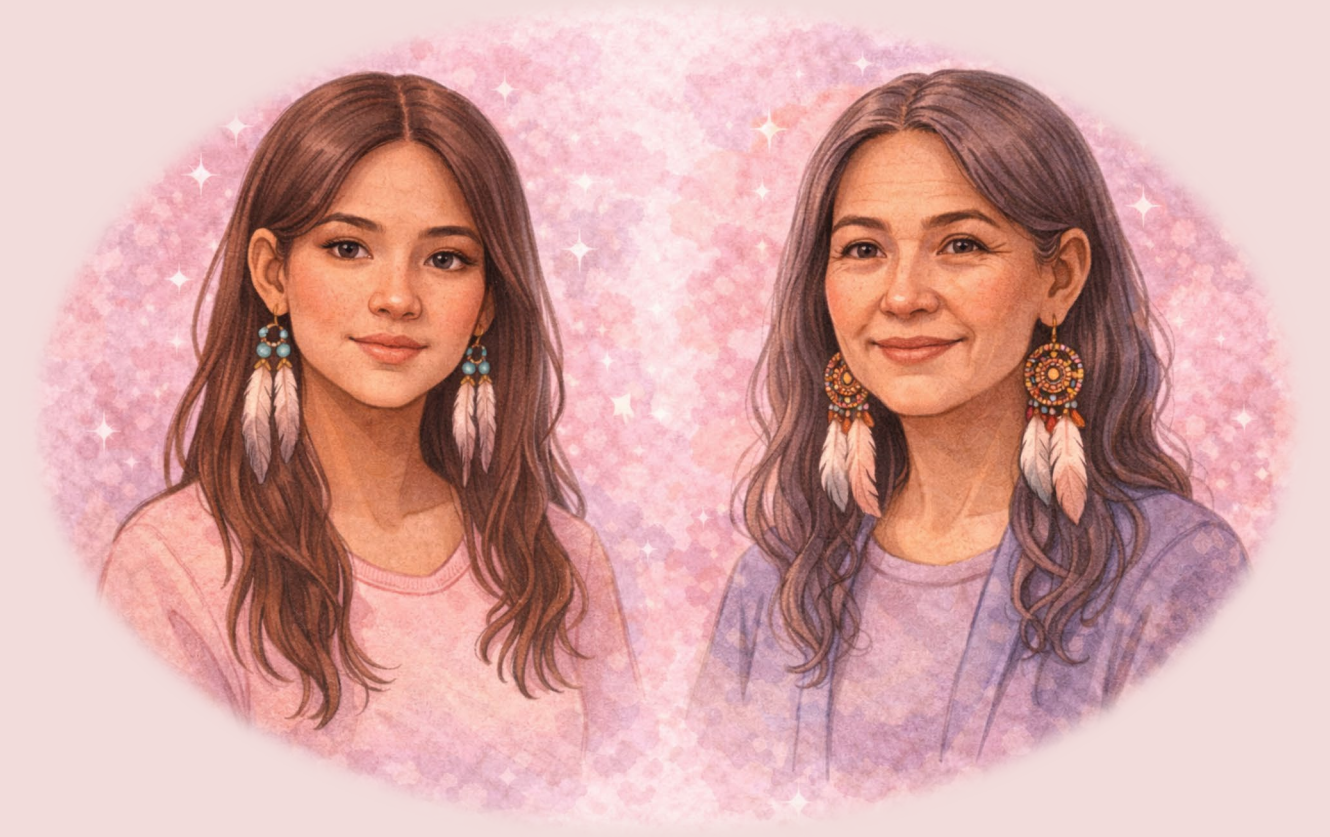
- Immunosuppressed patients less than 25 and sexually active should have an annual PAP smear
- After 3 normal PAPs or at 25 HPV testing every 3 years.
- No modifications for screening for patients who are pregnant.
- INESSS **does not** recommend adjusting the screening protocol according to individual vaccination status. Such adjustments could become useful when the impact of vaccination in the screening-eligible population is greater or when data to support such adjustments become available.



CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Transition period: PAP to HPV testing:

- 3 years after normal PAP testing in immunocompetent patient.
- 1 year after normal PAP testing in immunosuppressed patient.



CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Based on the published guidelines, the recommended age to stop screening varies from 65 to 74 years.

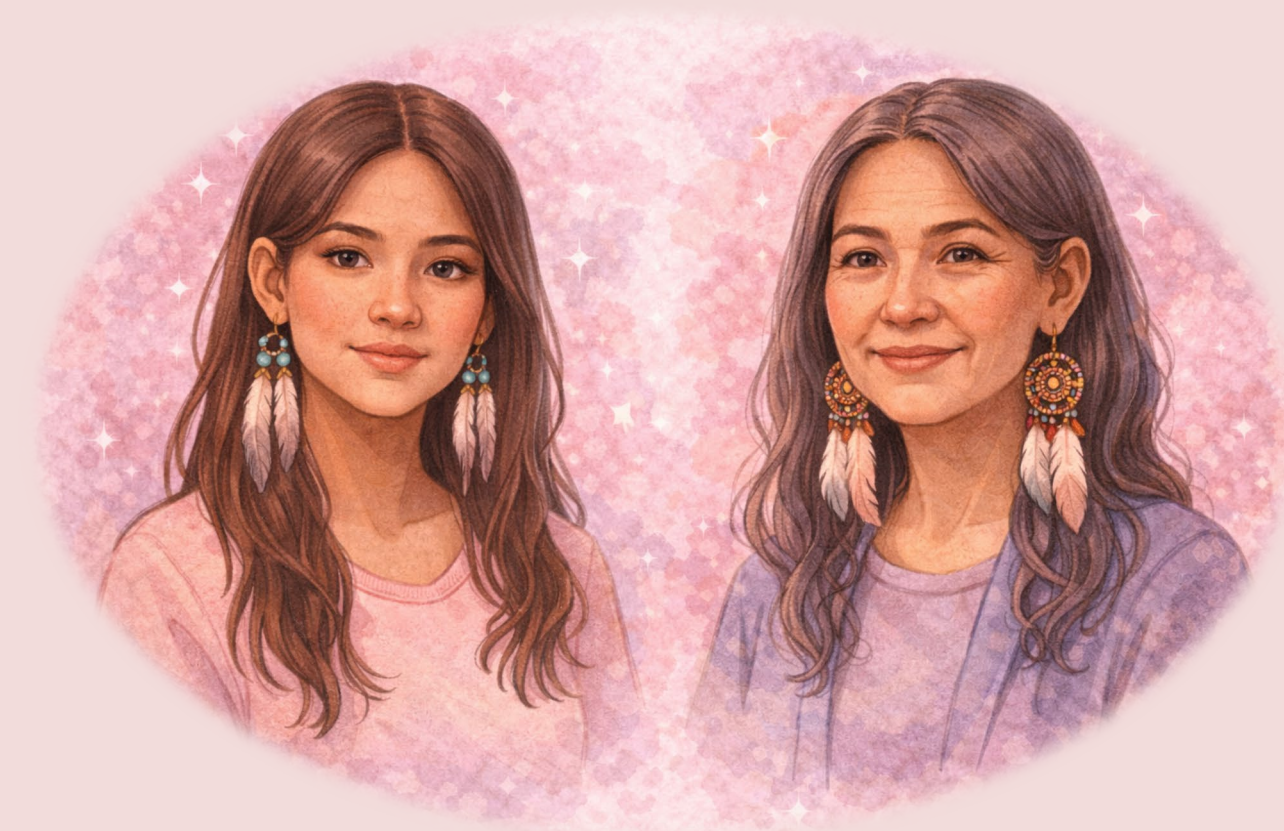
No studies were found that examined the age at which HPV test screening should be stopped.

One Canadian modeling study suggests that stopping HPV test screening at age 55 is safer than stopping cytology-based screening at age 70.

Further reductions in the lifetime cervical cancer risk can be achieved by continuing HPV test screening until age 75.

Risk of CIN2+, CIN3+ or cancer in the 5 years after a negative HPV screening is inferior to the 3-year risk after a negative pap smear.

Combination of partial genotyping for HPV oncogenes and cytology for triage of positive results offers the best compromise to optimise sensitivity and specificity. . **A CYTOLOGY IS NECESSARY FOR OPTIMAL COLPOSCOPY.**



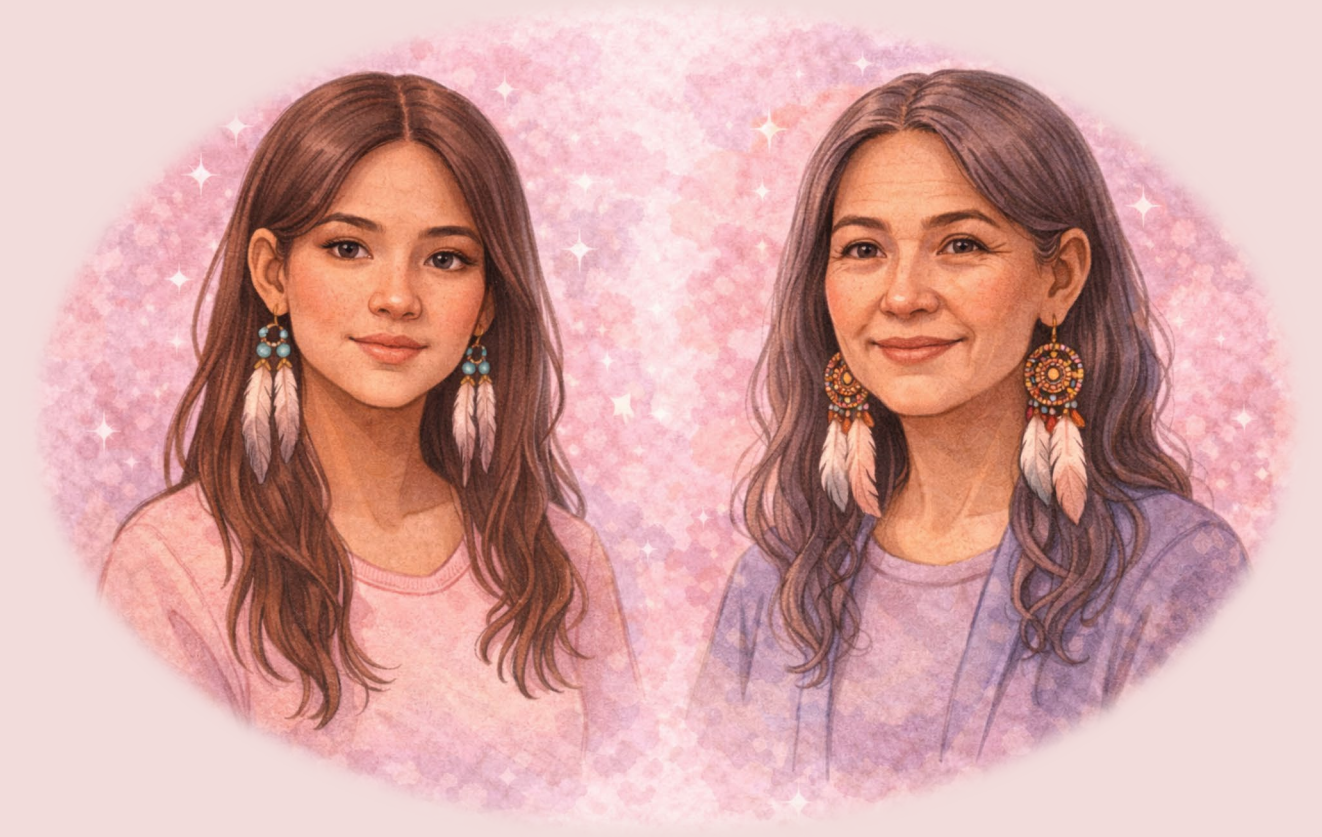
CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Points saillants:

Les femmes consultées se sont généralement montrées favorables au test VPH.

Inquiétudes (Six thèmes):.

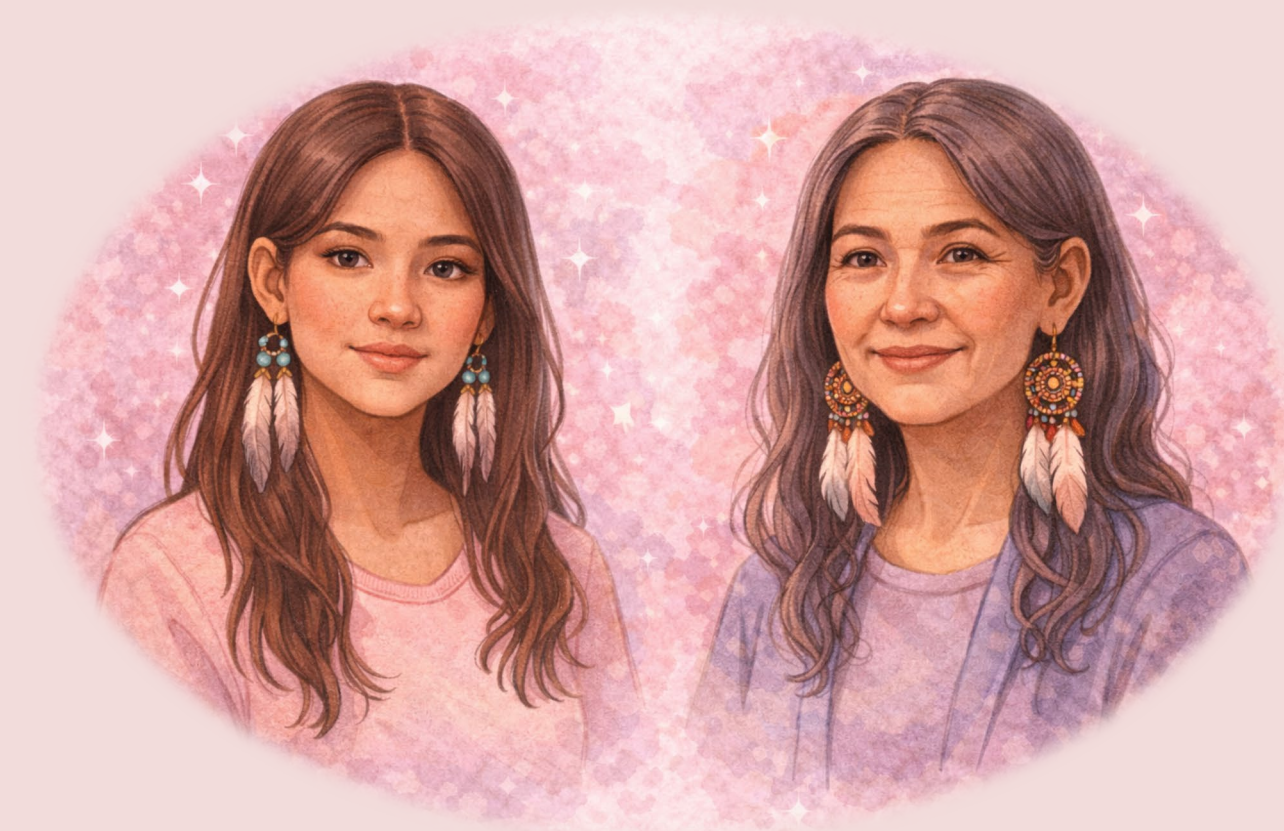
- . Les réactions face aux changements et impacts sur les habitudes de dépistage des femmes.
- . L'association que font les femmes entre le dépistage et la santé sexuelle en général.
- . Le besoin de réassurance et la peur de manquer des cas de lésions cervicales.
- . L'importance d'informer la population au sujet du dépistage
- . L'égalité d'accès au dépistage
- . Les changements organisationnels nécessaires pour maximiser les avantages du test VPH.



CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

INESSS is of the opinion that self-sampling offers many advantages and that it should be included among the options considered in the implementation strategy for Québec's cervical cancer screening program for all eligible persons, taking the following into account:

- validation of the self-sampling kit will be necessary if it has not been approved by Health Canada and could have an impact on the program's implementation timeframe. This could be avoided if the kit was validated by the manufacturer for this type of specimen collection.
- if self-sampling cannot be offered to all eligible persons, an effort should be made to offer it to under-screened populations, as recommended in the initial report published in 2022.
- If self-sampling is made available to all eligible persons, they should be able to choose the sampling method that suits them.



CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Vulnerable populations:

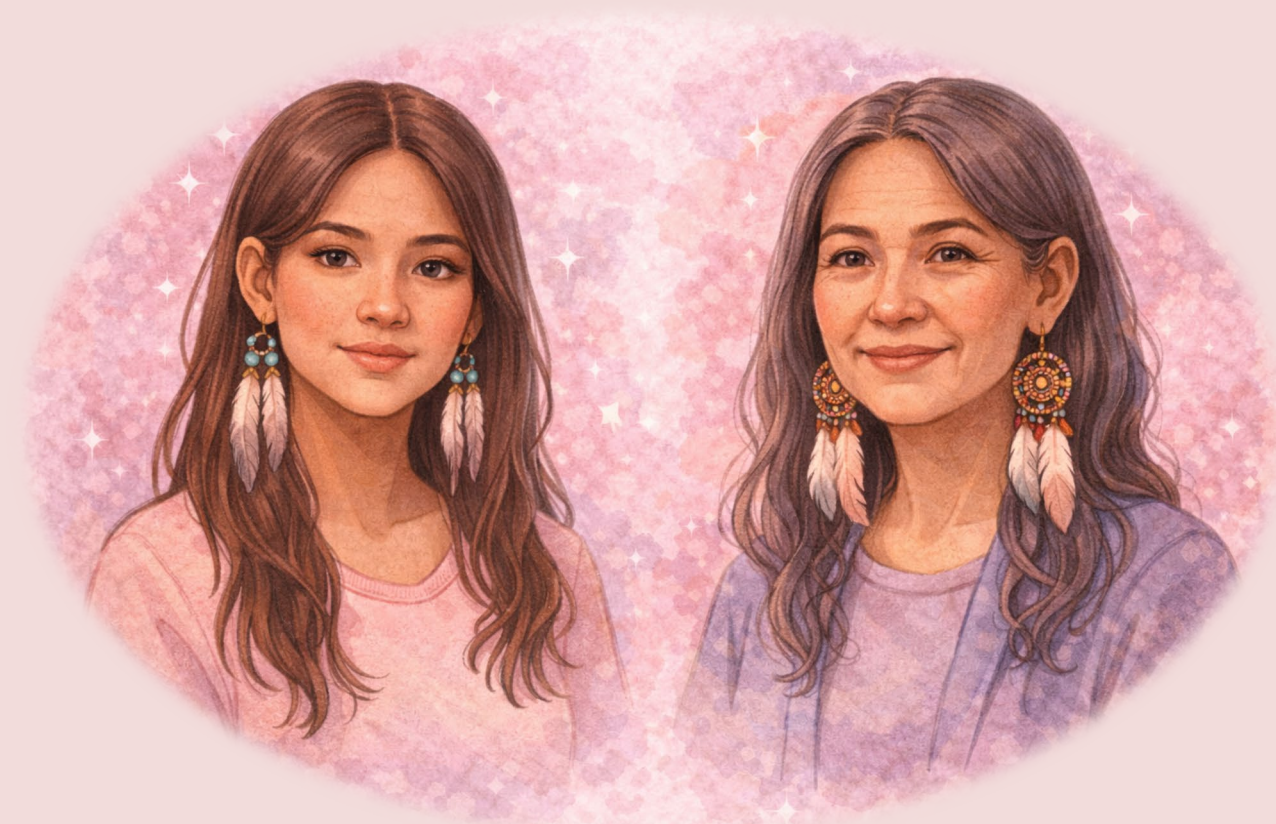
Most studies show self-sampling increases in screening rates. Certain groups are less susceptible to participate in screening programs: First Nation, Inuit and Métis women, immigrants, lower socioeconomic groups and (LGBTQ+). A survey of the literature served to document the barriers these persons face and provided an understanding of the **potential usefulness of self-sampling** in these settings. **Personal, cultural and geographical barriers were identified**, along with those related to **access to health services**. The included studies suggest that **self-sampling is considered an acceptable option by people in under-screened groups** and that it could meet their needs.

4.5.1 Peuples autochtones

Au Québec, 11 nations autochtones, soit 10 Premières Nations et une nation inuite, (1 % de la population de la province). D'après un rapport publié par l'INSPQ en 2009, qui rapportait les données d'incidence des cancers et de la mortalité associée pour les années 1988 à 2004, **l'incidence du cancer du col de l'utérus était plus élevée chez les femmes autochtones** vivant dans les réserves et les villages nordiques que dans l'ensemble de la population québécoise (21,3 vs 8,2 cas sur 100 000 personnes par année) [INSPQ, 2009]. Il en était de même pour la **mortalité (8,0 vs 2,0 décès sur 100 000 personnes par année)**.

Certaines nations autochtones, dont les Inuits du Nunavik, ont un accès plus difficile au dépistage et au suivi pour des raisons géographiques. Ces personnes habitent 14 communautés qui sont dispersées à travers le nord de la province. Le test Pap est disponible dans chacune de ces 14 communautés, mais le suivi en colposcopie serait offert uniquement à Kuujuaq et à Puvirnituq, ce qui signifie que les personnes qui ont besoin d'une colposcopie à la suite d'un résultat de dépistage positif doivent se rendre, en avion, à l'une des communautés qui pratiquent cet examen [Cerigo *et al.*, 2012b].

29 GouvernementduQuébec.Profildesnations[siteWeb].Disponibleà:<https://www.quebec.ca/gouv/portrait->

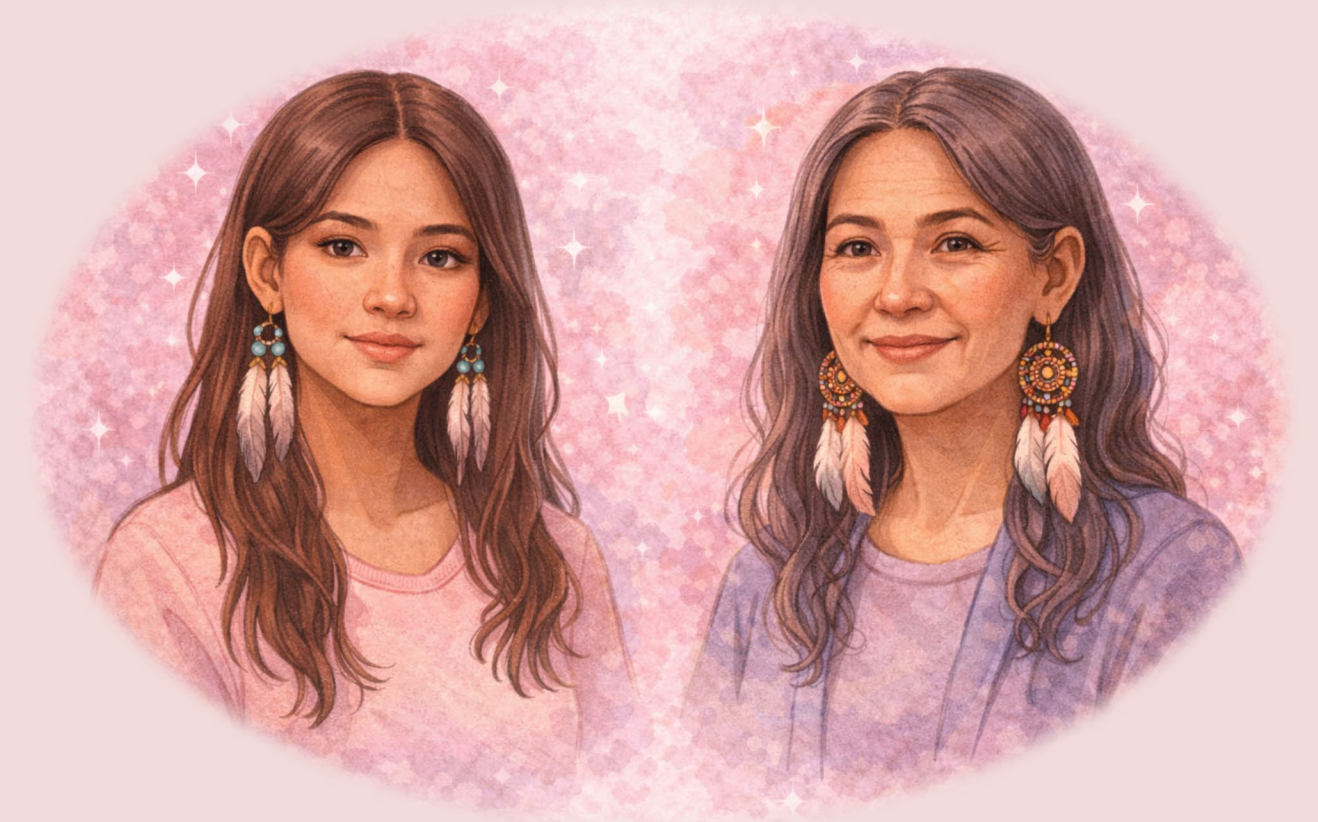


CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Vulnerable populations:

Plusieurs études qui ont rapporté la perspective des femmes inuites du Nunavik au sujet du dépistage du cancer du col ont été repérées. Dans une étude, l'âge a été fortement associé à la non-assiduité au dépistage, et les femmes âgées de 21 à 29 ans étaient environ trois fois plus susceptibles d'être assidues que les femmes âgées de 30 à 44 ans [Cerigo *et al.*, 2013]. Les deux autres facteurs significativement associés à la non-assiduité au dépistage chez ces femmes sont le fait de ne jamais avoir donné naissance ou le fait de ne pas utiliser de contraception. Dans une autre étude, 47 % des participantes avaient déjà entendu parler du dépistage du cancer du col de l'utérus, et 96 % des femmes qui en avaient déjà entendu parler ont affirmé en avoir subi un dans le passé [Cerigo *et al.*, 2012b].

Associations with adherence to cervical cancer screening: young age, pregnancy care, contraceptive use.



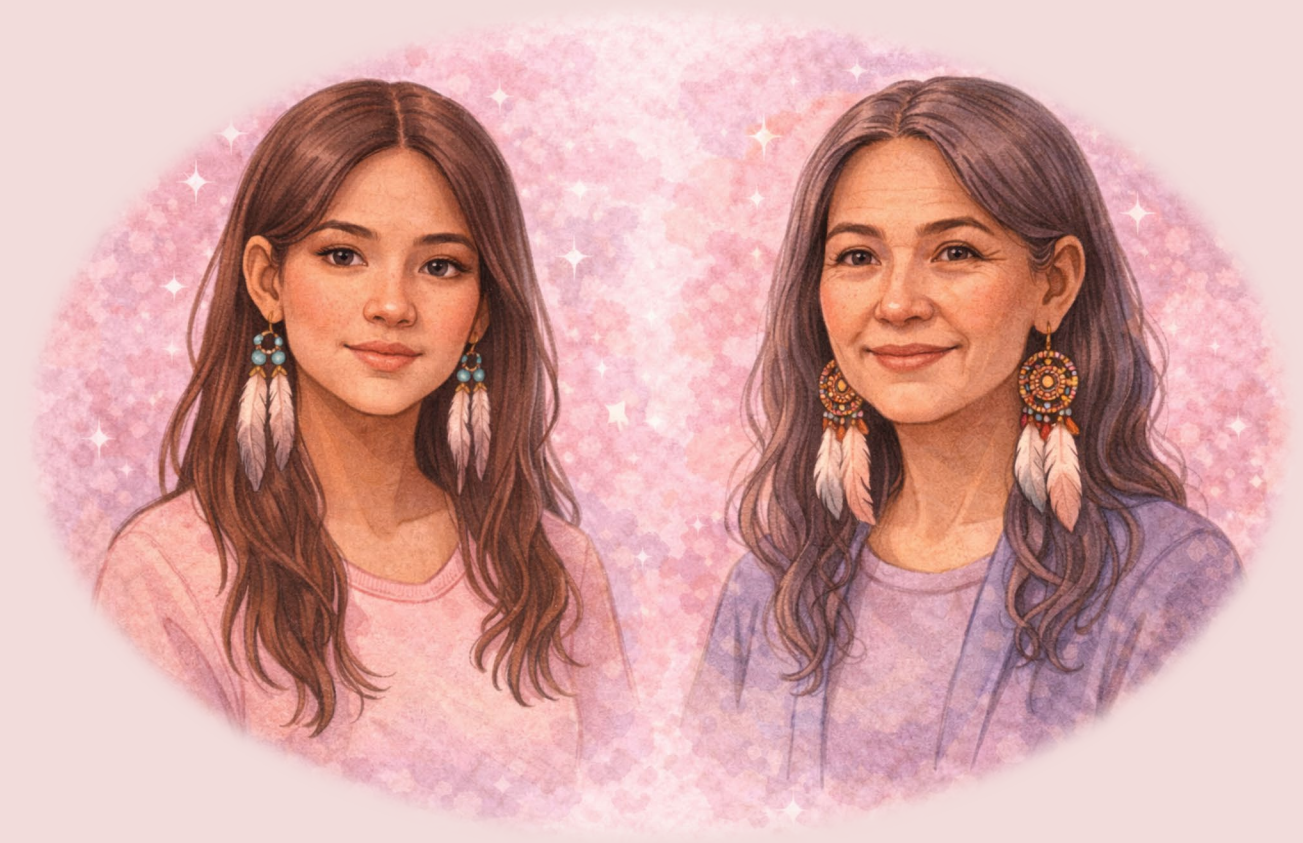
CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Vulnerable populations:

Une revue systématique récente a recensé de façon qualitative les **barrières à la participation au dépistage chez les populations autochtones** [Sethi *et al.*, 2021]. Dix études ont été incluses dans la revue, dont sept sont des études canadiennes. Les barrières suivantes sont décrites par les auteurs :

- Traumatisme psychologique
- Barrières socioculturelles:
 - Stigmatisation (VPH étant ITS)
 - Peur de l'isolement.
- Barrières institutionnelles ou organisationnelles :
 - manque de sensibilité culturelle des professionnels de la santé
 - absence d'intégration du dépistage aux autres soins de santé
 - barrière de la langue
 - expérience négative en lien avec les soins de santé
 - dépistage réalisé par un homme
 - Inquiétudes relative à la confidentialité (villages où tout le monde se connaît).
- Barrières personnelles :
 - manque d'information sur le dépistage ou de sensibilisation au sujet des VPH
 - gêne ou sentiment d'inconfort à l'idée de subir un examen gynécologique
 - peur de recevoir un diagnostic de cancer
 - barrières financières—transport vers la clinique médicale (absence du travail pour l'examen).

Dans les études qui ont examiné les solutions potentielles à ces barrières, **l'autoprélèvement a été perçu comme une solution pratique**, moins embarrassante et qui respecte mieux la vie privée et l'autonomie. Les participants à ces études ont insisté sur l'importance d'informer adéquatement les personnes ciblées au sujet de l'autoprélèvement pour assurer une bonne compréhension des objectifs du test et ainsi optimiser sa couverture.



CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Vulnerable populations:

L'autoprélèvement dans le but d'augmenter la participation au dépistage dans les populations autochtones a été étudié, tant pour connaître l'acceptabilité de l'autoprélèvement que sa validité clinique dans ce contexte:

1. Dans une étude, 85,3 % des femmes inuites du Nunavik approchées ont accepté de participer et de faire l'autoprélèvement.

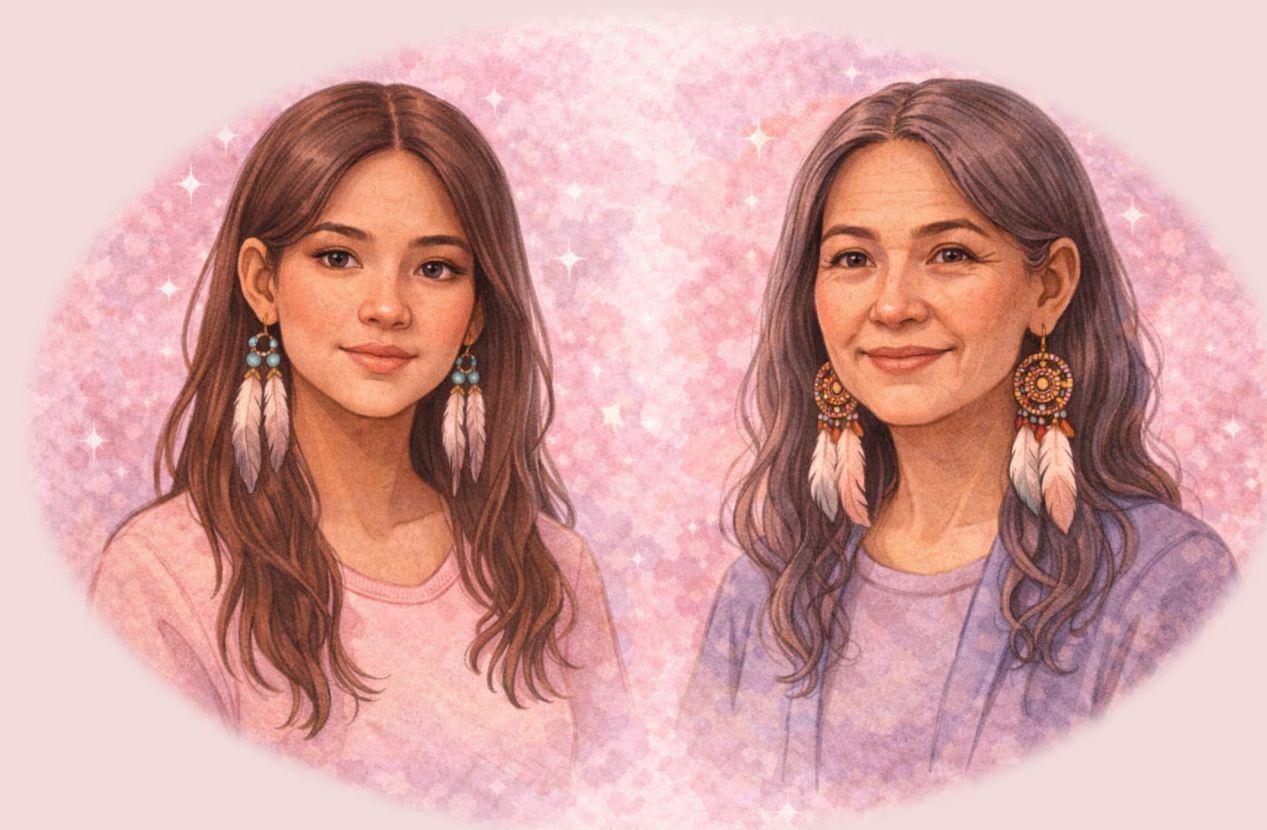
D'après le questionnaire administré aux participantes, 55,8 % d'entre elles préfèrent l'autoprélèvement, alors que les autres préfèrent le prélèvement par un professionnel de la santé.

Les auteurs rapportent également une association inverse entre un niveau de scolarité plus élevé et une préférence pour l'autoprélèvement (rapport de cotes ajusté de 0,29, IC 95 % 0,09-0,92).

2. Dans une autre étude, la performance de l'autoprélèvement en comparaison avec un prélèvement par un clinicien, et ce, spécifiquement dans le contexte du dépistage chez des Inuites du Nunavik, a été évaluée [Cerigo *et al.*, 2012a].

Les 93 participantes étaient âgées de 18 à 69 ans et toutes ont fait l'autoprélèvement; un prélèvement au niveau du col a été fait par une infirmière au cours de la même visite. L'autoprélèvement a été fait au moyen d'un écouvillon et transporté à sec, alors que le prélèvement effectué par l'infirmière a été préservé en milieu liquide. Tous les prélèvements ont été transportés vers Montréal pour les analyses. La concordance entre les deux méthodes pour la détection des VPH a été de 76,4 %. Dans les cas où le résultat était différent, l'autoprélèvement était plus susceptible d'être positif que le prélèvement effectué par l'infirmière.

Il n'y avait pas de différence significative entre les deux méthodes pour la détection des VPH 16 et 18. Les auteurs de l'étude concluent que l'autoprélèvement dans cette région, avec transport à sec des échantillons, est comparable à un dépistage traditionnel et permettrait potentiellement de mieux réaliser le dépistage chez cette population s'il était implanté.



CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

Points saillants:

L'autoprélèvement et le prélèvement par un clinicien ont une **bonne concordance** pour la détection des VPH oncogènes.

La performance de l'autoprélèvement pour la détection de lésions de haut grade est similaire à celle du test VPH réalisé sur un prélèvement effectué par un clinicien, à condition qu'il soit jumelé à un **Test PCR**.

La **qualité des échantillons** aux fins d'analyse serait **comparable** entre l'autoprélèvement et le prélèvement par un professionnel de la santé.

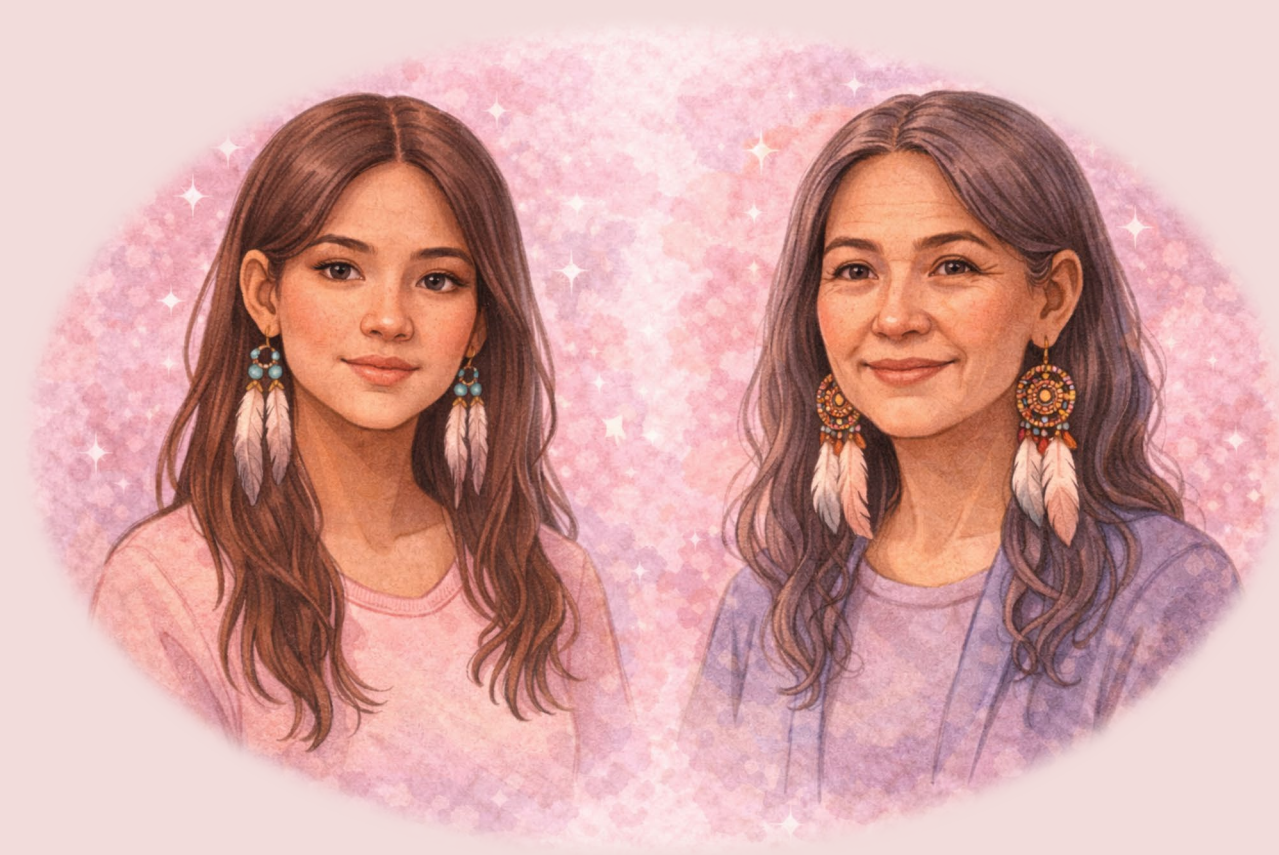
L'envoi de trousse d'autoprélèvement aux personnes « sous-dépistées » augmente le taux de participation de ces personnes au dépistage .

Il est difficile de statuer sur l'impact d'une offre d'autoprélèvement sur le taux de participation avec les données disponibles.

D'après les données disponibles dans la littérature et la consultation menée par l'INESSS, l'autoprélèvement est **jugé acceptable par la vaste majorité des personnes** qui l'ont effectué test ou questionnées.

Certaines personnes préfèrent continuer d'avoir un prélèvement par un clinicien. Ces personnes ont manifesté des inquiétudes quant à leur capacité à réaliser correctement l'autoprélèvement et à la validité du résultat.

Selon une revue de littérature, l'offre **d'autoprélèvement pour un test VPH apporterait des économies** comparativement au prélèvement par un professionnel de la santé.

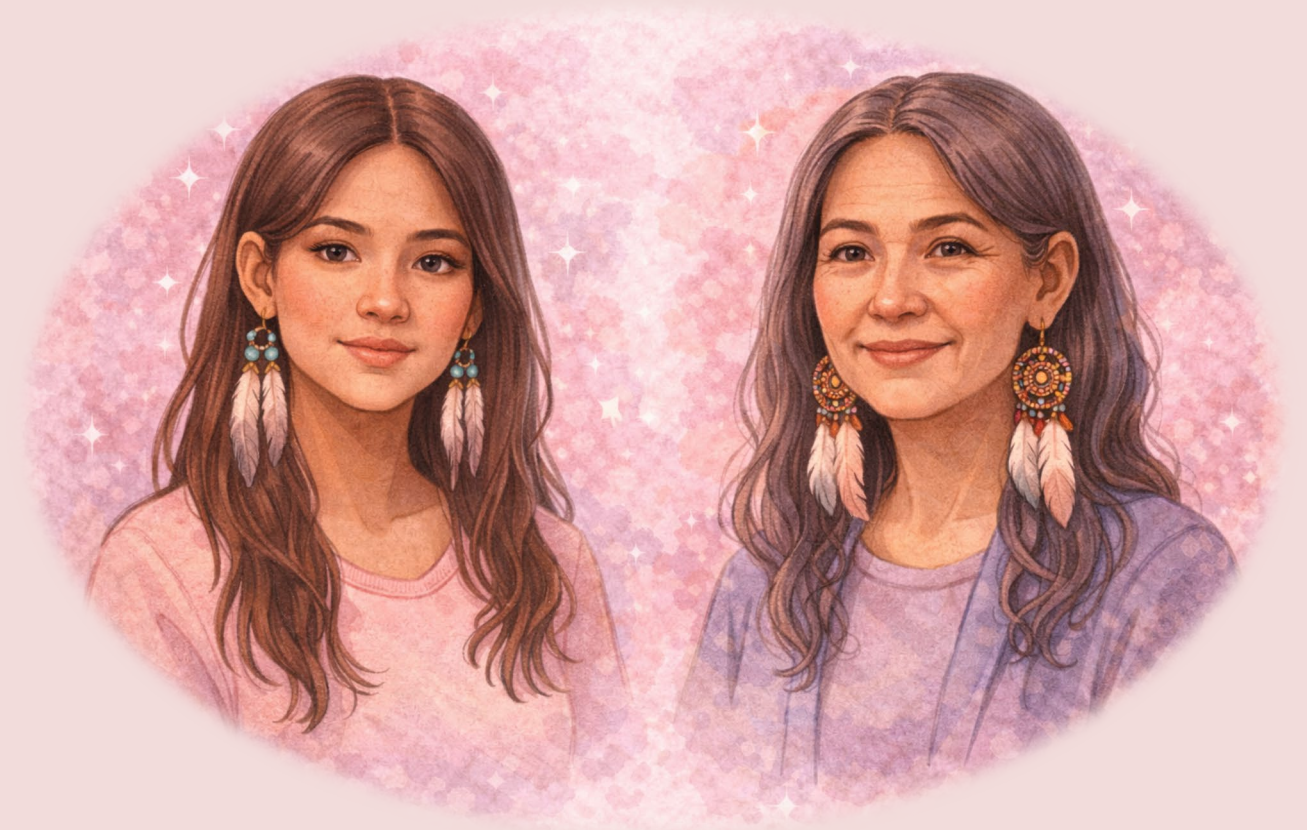


CERVICAL CANCER SCREENING: ELIGIBILITY CRITERIA AND EXCLUSION CRITERIA (NATIONAL GUIDELINE)

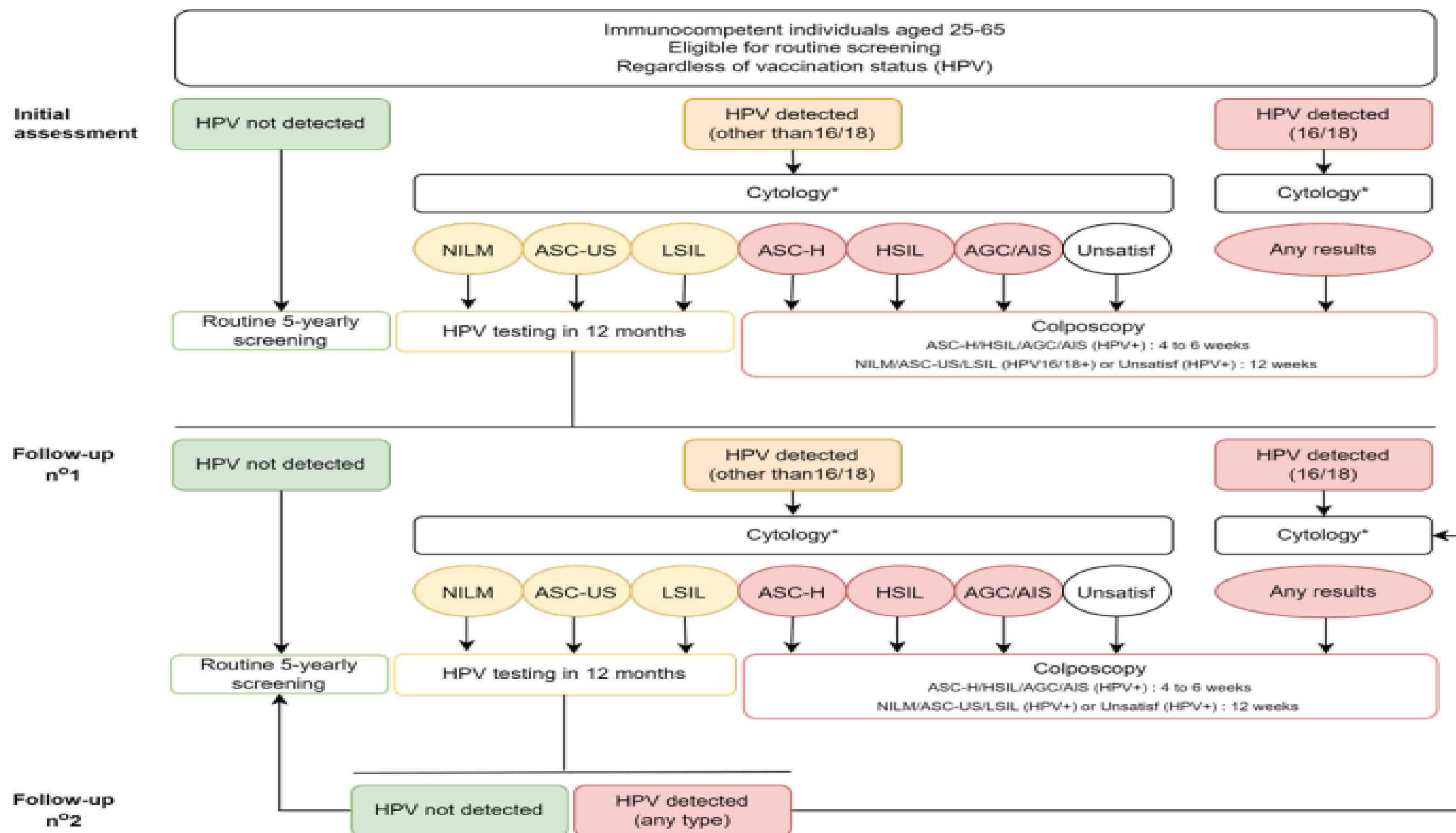
Points saillants:

La **Suède**, les **Pays-Bas**, la **Nouvelle-Zélande** et l'**Australie** offrent maintenant l'autoprélèvement à toute la population admissible. Au Canada, la **Colombie-Britannique** offre désormais l'autoprélèvement à toute la population admissible.

Diverses organisations et sociétés savantes sont d'avis que l'autoprélèvement devrait être offert aux populations « sous-dépistées » ou être une option offerte à la population générale admissible au dépistage.



APPENDIX I - DECISION ALGORITHM



AGC: atypical glandular cells; AIS: adenocarcinoma *in situ*; ASC-H: atypical squamous cells-cannot exclude high-grade squamous intraepithelial lesion; ASC-US: atypical squamous cells of undetermined significance; HPV: human papillomavirus; HSIL: high-grade squamous intraepithelial lesion; LSIL: low-grade squamous intraepithelial lesion; NILM: negative for intraepithelial lesion or malignancy; unsatisf: unsatisfactory.

* A cytological examination is automatically required if the result of the HPV test is positive (any type). The specimen preserved in a liquid-based cytology collection medium can be used to perform a cytological examination on the same sample as that sent for the HPV test.

Time to colposcopy consultation is calculated from the date of the colposcopy consultation request.

For further information about this algorithm, please consult the following INESSS website [Algorithmes d'investigation, de traitement et de suivi \(algorithmes-onco.info\)](http://algorithmes.dinvestigation.de.traitement.et.de.suivi.algorithmes-onco.info).

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No. 888039

Initiating an HPV test and following up on results for cervical cancer screening

STEP 1 : HEALTH STATUS ASSESSMENT

Check for the following items, which confirm the clinical situation:

1. Immunocompromised individual:

Situations in which recommendations for immunocompromised individual should be followed

- *Those living with HIV;*
- *Those who have had a solid organ transplant or an allogeneic hematopoietic stem cell transplant*
- *Those with disseminated lupus erythematosus;*
- *Those being treated with an immunosuppressant for inflammatory bowel disease or rheumatoid arthritis;*
- *Those with congenital (primary) immunodeficiency.*

ALSO Check for the following situation, to assess whether the individual is immunocompromised

- *Receiving chemotherapy or radiation therapy.*

2. Date of last screening result with HPV test or Pap test.

If the year when the last test was performed is unknown, screening is indicated.

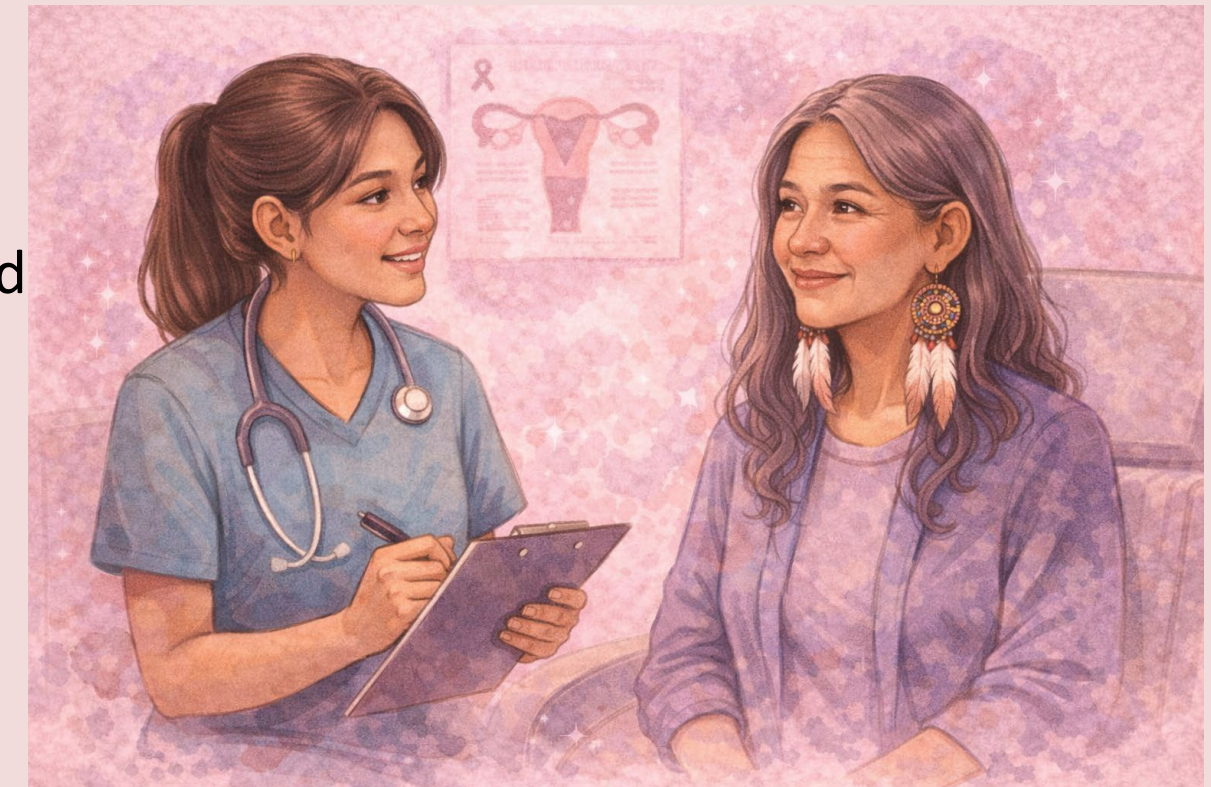


Image générée par IA

STEP 1 : HEALTH STATUS ASSESSMENT

3. Check for the following items, which are contraindications to applying this protocol:

- *Hysterectomy if cervix removed. If for a malignant condition or if the reason is unknown, a medical assessment is required. (with prescription HPV/PAP TEST of vault)*
- *Being under medical surveillance for cancerous or precancerous cervical lesions to whom return to regular screening has not been recommended.*
- *The use of a vaginal gel, cream, lubricant or douche during the past 24 hours, as they can cause a false-negative result. Postpone screening.*

4. Signs and symptoms

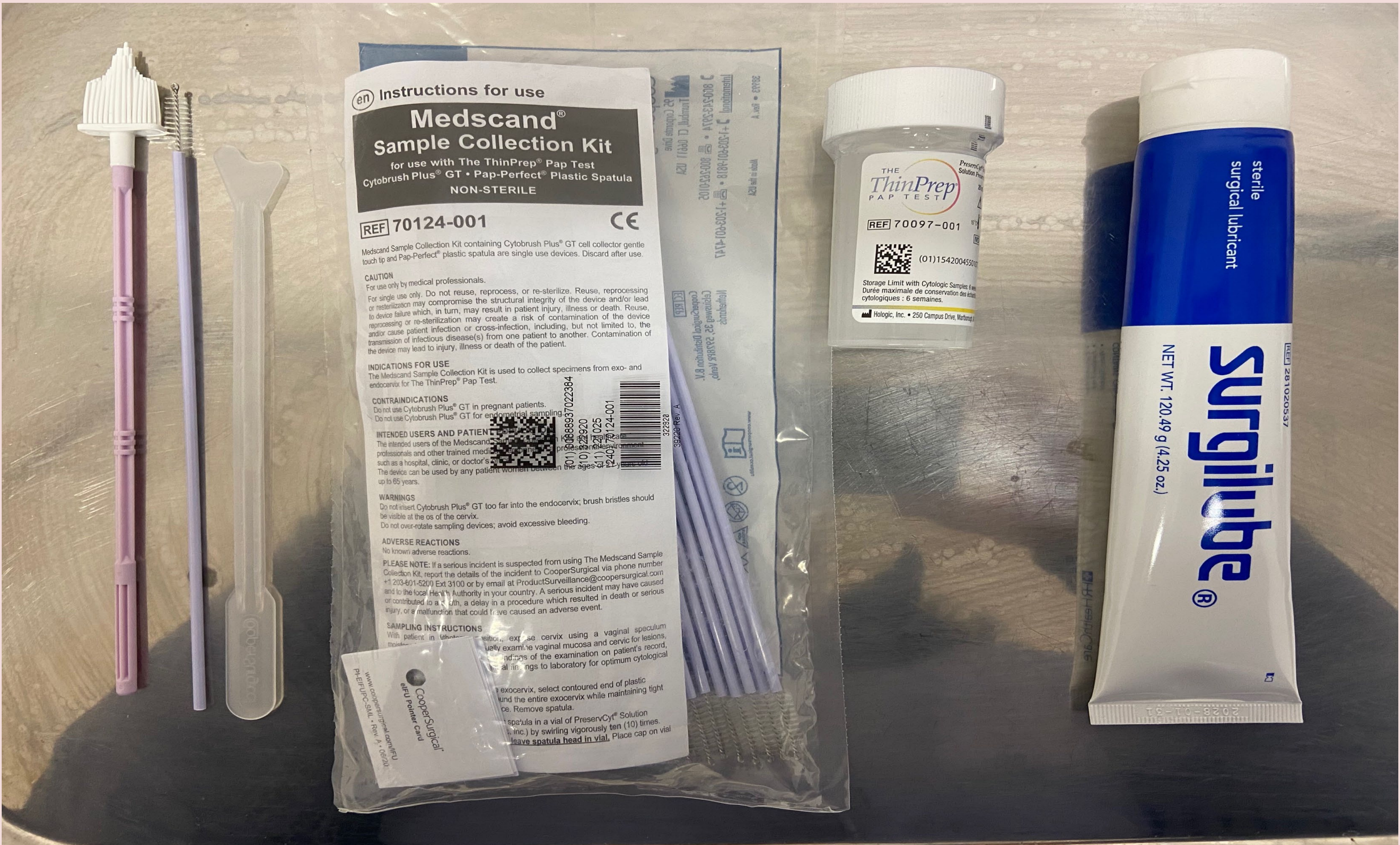
Check for the following symptoms, **for which testing is still indicated**. However, the individual requires a medical assessment with a physician or SNP, without waiting for the screening result:

- *Abnormal bleeding: • post-menopausal bleeding, • persistent unexplained intermenstrual bleeding, • recurrent or persistent postcoital bleeding.*
- *Unexplained and persistent pain during sexual intercourse.*
- *Unusual and persistent vaginal discharge.*



Image générée par IA

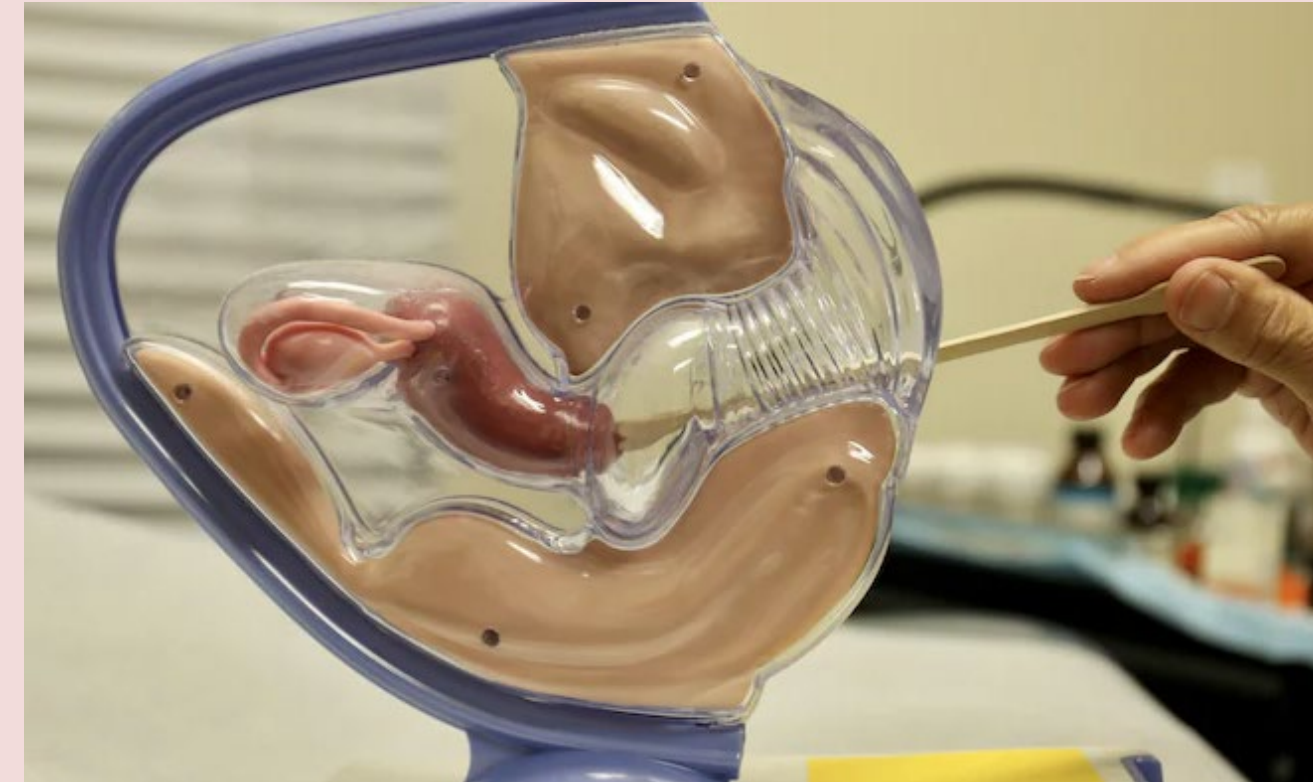
Step 2: Screening test



STEP 2 :Screening Test

Collect the specimen:

- Eliminate the excess mucus from the cervix before you collect the specimen.
 - Collect a cytology specimen from the cervix, including the endocervix and exocervix, using the procedure set out in the instruction manuals for the specimen collection devices and storage medium used.
 - Fill out the laboratory test requisition form and send the specimen in accordance with the current instructions at your facility.
-
- **IMPORTANCE OF EXAMINATION.**



Source Radio CanadaLe test Pap, qui consiste à prélever des cellules à l'entrée du col de l'utérus (photo), sera remplacé par le test VPH. (Archives)

Photo : Radio-Canada / Carl Boivin

INFORMATION TO BE PROVIDED

PRIOR TO SCREENING

Inform the individual:

- of how they will be notified of the result.
- when their next screening test will be if their result is negative.
- 5 years for immunocompetent individuals and 3 years for immunocompromised individuals.
- that in the event of a positive result they will be contacted to discuss the follow-up procedure.

UPON RECEIVING A POSITIVE RESULT

- Inform the individual of the result and what the next steps will be. If the algorithm indicates that the result requires another HPV test in 12months, inform them that they will need to schedule this appointment.

SITUATIONS REQUIRING SPECIAL ATTENTION OR A MEDICAL ASSESSMENT

- Vaginal atrophy or dryness preventing the insertion of a speculum and visualization of the cervix.
- Abnormal bleeding.
- Unexplained and persistent pain during sexual intercourse.
- Unusual and persistent vaginal discharge.
- Any abnormality found upon pelvic examination.

STEP 3: FOLLOW-UP

FOLLOW-UP ON RESULT –IMMUNOCOMPETENT INDIVIDUAL	
Negative HPV result	Return to screening in 5 years
Inadequate sample	Inform the individual and schedule a repeat screening test within 6 to 12 weeks after receiving the result. If the reason the test failed is known, the situation should be corrected before the repeat.
Positive HPV result	CERVICAL SAMPLING: See the algorithm in Appendix I to determine how to proceed based on the HPV test and cytology results.
	SELF-SAMPLING: Inform the individual of the result and schedule a cervical sampling visit. See the algorithm in Appendix I for follow-up instructions.
FOLLOW-UP ON RESULT –IMMUNOCOMPROMISED INDIVIDUAL	
Negative HPV result	Return to screening in 3 years
Inadequate sample	Inform the individual and schedule a repeat screening test within 6 to 12 weeks after receiving the result. If the reason the test failed is known, the situation should be corrected before the repeat.
Positive HPV result	CERVICAL SAMPLING OR SELF-SAMPLING: refer for a colposcopy. Recommended time to colposcopy consultation, based on the cytology result: • ASC-H, HSIL, AGC, AIS: as soon as possible. Ideally, within 4 to 6 weeks*; • NILM, ASC-US, LSIL or unsatisfactory: within 12 weeks*. * Calculated from the date of the colposcopy consultation request.

¹ Information about the HPV test and the colposcopy examination is provided on the following MSSS website: <https://www.quebec.ca/sante/conseils-et-prevention/depistage-et-offre-de-tests-de-porteur/test-vph>.



Orientation for:

- Immunosuppressed person less than 25 years old:
 - LSIL or more = colposcopy
 - ASCUS repeat cytology in 12 months
- Immunosuppressed person 25 years old and more with oncogenic HPV: Colposcopy
 - ASC-H, HSIL, glandular lesions: 4-6 weeks ideal delay
 - NILM, ASCUS, LSIL OR unsatisfactory: 12 weeks ideal delay
- .

MAWLUGUTINEJ Project



Cervical cancer algorithm

Inclusion criteria :

- Be between 25 and 65 years old
- Still have their cervix (woman and trans person)
- No Pap test in the last 3 years or in the last year for immunosuppressed
- Who are or have been sexually active
- Covered by RAMQ

Exclusion criteria

- Total hysterectomy
- Patient followed for pre-cancerous or cancerous lesion of the cervix in gynecology (active follow-up)
- Use of gel, cream, lubricant and vaginal douche in the last 24 hours

Cytology:

AGC : atypical glandular cells

AIS : Adenocarcinoma in-situ

ASC-H : atypical squamous cells (does not exclude a high-grade intraepithelial squamous lesion)

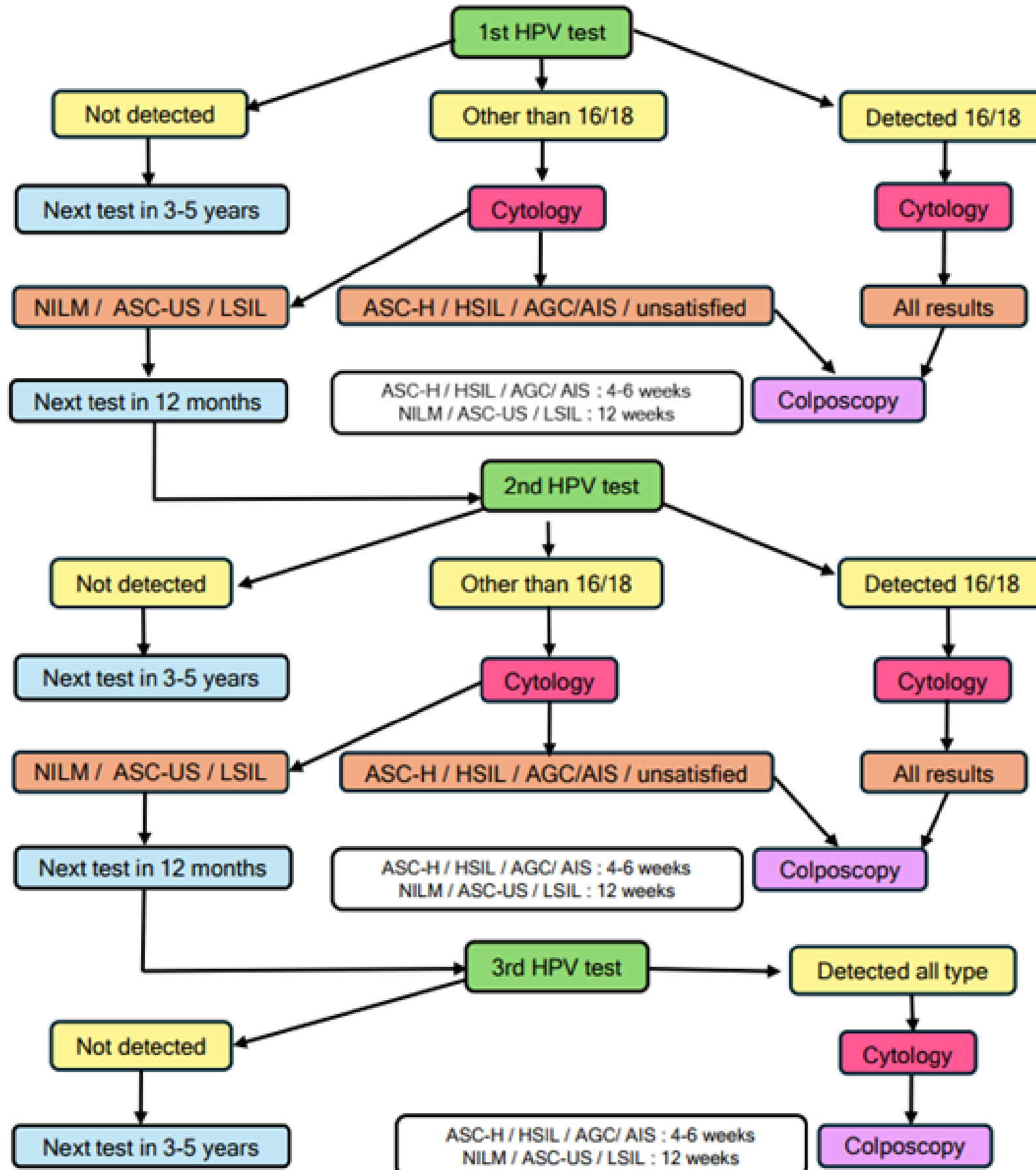
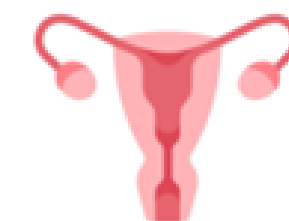
ASC-US : Atypical squamous cells of undetermined significance

HSIL : High-grade intraepithelial squamous lesion

Unsatisfied

LSIL : low-grade squamous intraepithelial lesion

NILM : absence of intraepithelial lesion or malignancy



Target Deadline: calculated from date of consultation reception.

For colposcopy consultation include:

- . Pertinent history.
- . Results of HPV test and cytology.

Centre intégré
de santé
et de services sociaux
de la Gaspésie

Québec

APPLICATION:

☐ RLS Baie-des-Chaleurs
☐ RLS Rocher-Percé

☐ RLS Côte-de-Gaspé
☐ RLS Haute-Gaspésie

COLPOSCOPY / CERVICAL THERAPY REQUEST

☐ Chandler Hospital Team
☐ Gaspé Hospital Team

NOTE: Results of the HPV test and cytology should be forwarded **simultaneously** to the colposcopist when a consultation is indicated. Any delay related to the performance of cytology should not interfere with compliance with the recommended timeframe for colposcopy consultation.

☐ HPV test and cytology results included with the request.
☐ HPV-positive and colposcopy recommended according to the INESSS algorithm (see Appendix 1).
☐ Lesion suspicious for cervical neoplasia.
☐ Lesion suspicious for vaginal or vulvar neoplasia.
☐ Colposcopy suggested for immunosuppressed patient (see Note 1).
 Reason for immunosuppression: _____
☐ Other: _____

Note 1: Screening results and referral context for colposcopy:

- Immunosuppressed individuals under 25 years of age who present with:
 - LSIL cytology or more severe findings should be referred for colposcopic evaluation;
 - ASC-US cytology should be offered repeat cytology in 12 months. Referral to colposcopy is recommended if follow-up cytology is ASC-US or more severe.
- Immunosuppressed individuals aged 25 years and older in whom oncogenic HPV is detected (any type) should be referred for colposcopic evaluation, regardless of cytology results.

Note:

Target deadlines

< 4-6 weeks	
HPV 16/18	
ASC-H	NILM
HSIL	ASC-US
US	LSIL
AIS	HPV+ and INSAT

< 4-6 weeks	
HPV other than 16/18 and	
ASC – H	
HSIL	
AGC	
AIS	

< 12 weeks	
HPV other than 16/18 and	
NILM	
ASC-US	
LSIL	
HPV+ and INSAT	

DATE _____

Signature of the physician/referring physician _____ # of permit _____

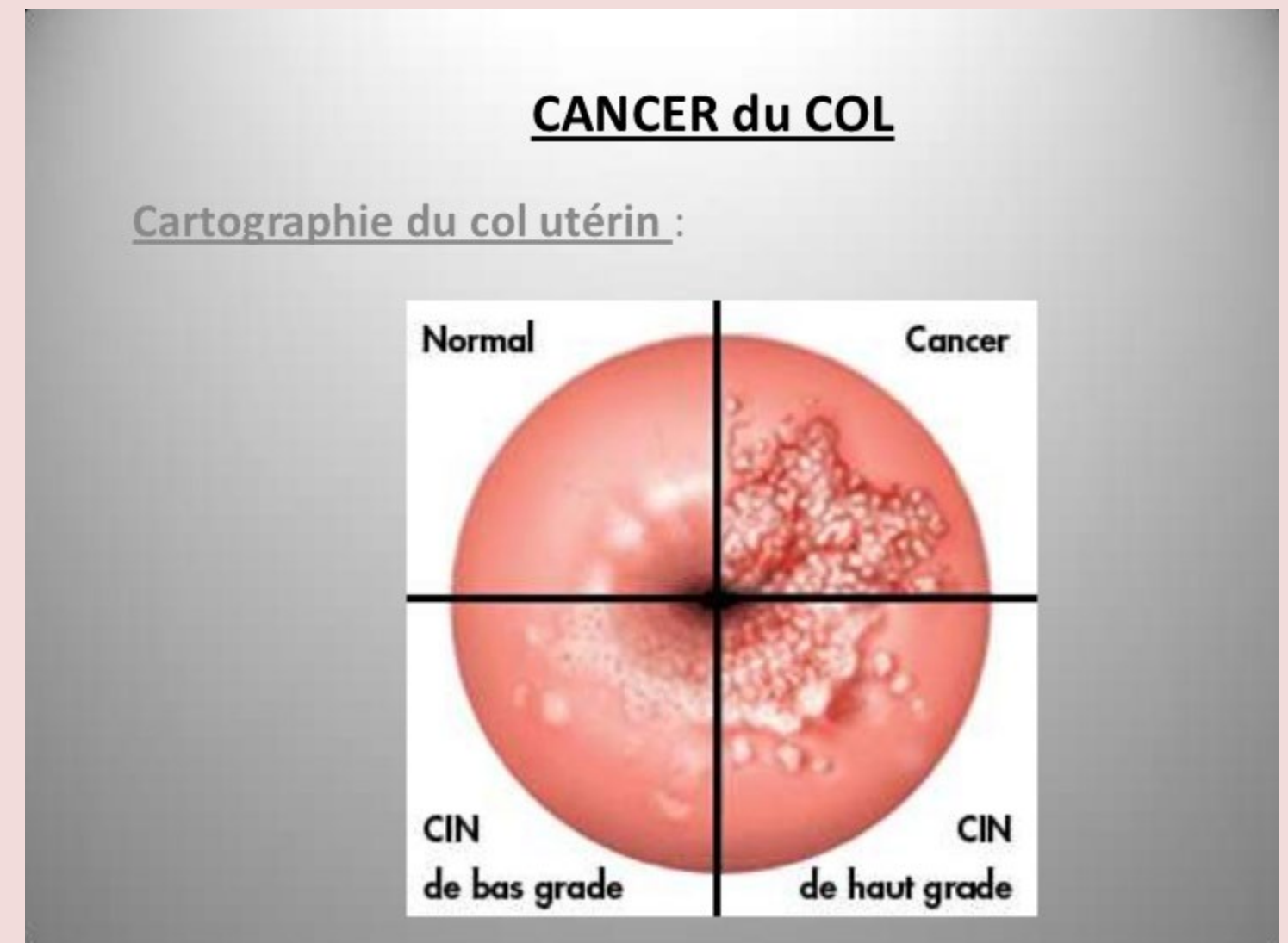
The disease burden of genital HPV infection:
cervical cancer
anogenital warts
cancer of the vulva, vagina, anus, and penis

Cervical cancer

This cancer is manifested by a slow, progressive change in the cells of the cervical mucosa, known as dysplasia or cervical intraepithelial neoplasia (CIN), which is considered precancerous. If left untreated, dysplastic cells can develop into tumor cells, sometimes after several years. CIN can be classified as mild (CIN 1), moderate (CIN 2) or severe (CIN 3).

Cervical cancer develops from the superficial cells of the cervix and can penetrate deep into the body. Cervical cancer can spread in several ways:

- by spreading directly to surrounding tissue, including the vagina
- By penetrating the rich network of small lymphatic vessels in cervical tissue, then spreading to other parts of the body.
- Rarely, by spreading through the bloodstream



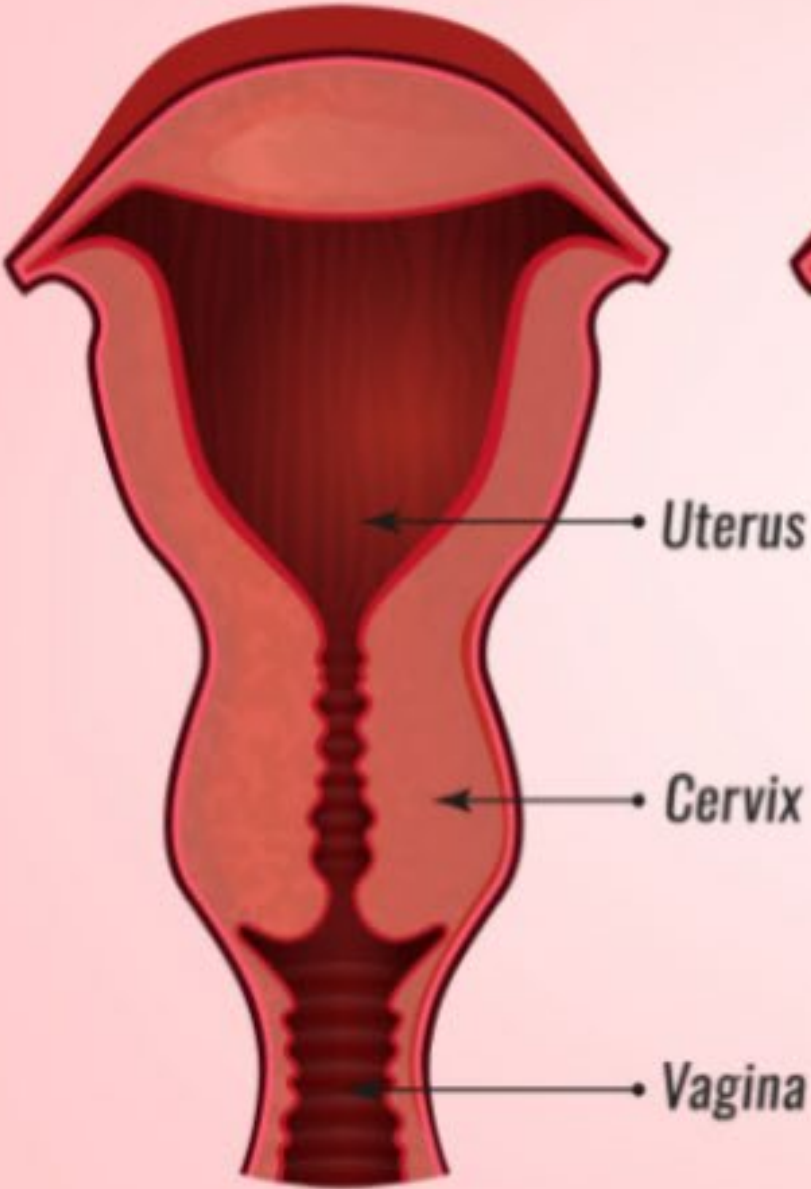
STAGING

- **Stage I:** the cancer is confined to the cervix
- **Stage II:** the cancer has spread outside the uterus, into the upper two-thirds of the vagina or into tissues outside the uterus but is still confined to the pelvis (which contains the reproductive organs, bladder and rectum).
- **Stage III:** the cancer has spread throughout the pelvis and/or the lower third of the vagina and/or obstructs the ureters and/or causes kidney dysfunction and/or has spread to lymph nodes near the aorta (the body's most important artery).
- **Stage IV:** cancer has spread outside the pelvis and/or to the bladder or rectum, or to distant organs.

Prognosis of cervical cancer: The percentages of women who survive beyond 5 years after diagnosis and treatment are:

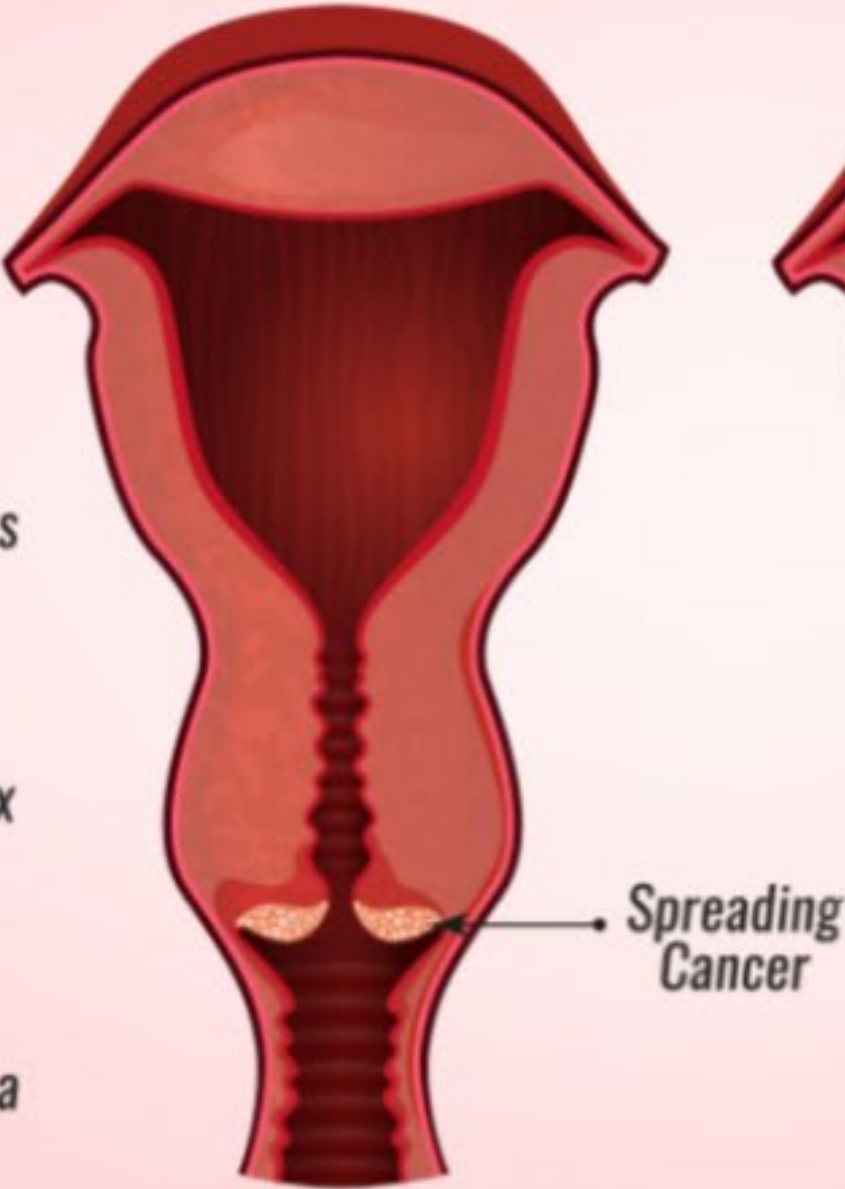
- **Stage I:** 80 to 90% of women
- **Stage II:** 60 to 75% of women
- **Stage III:** 30 to 40% of women
- **Stage IV:** 15% or less

Normal Cervix



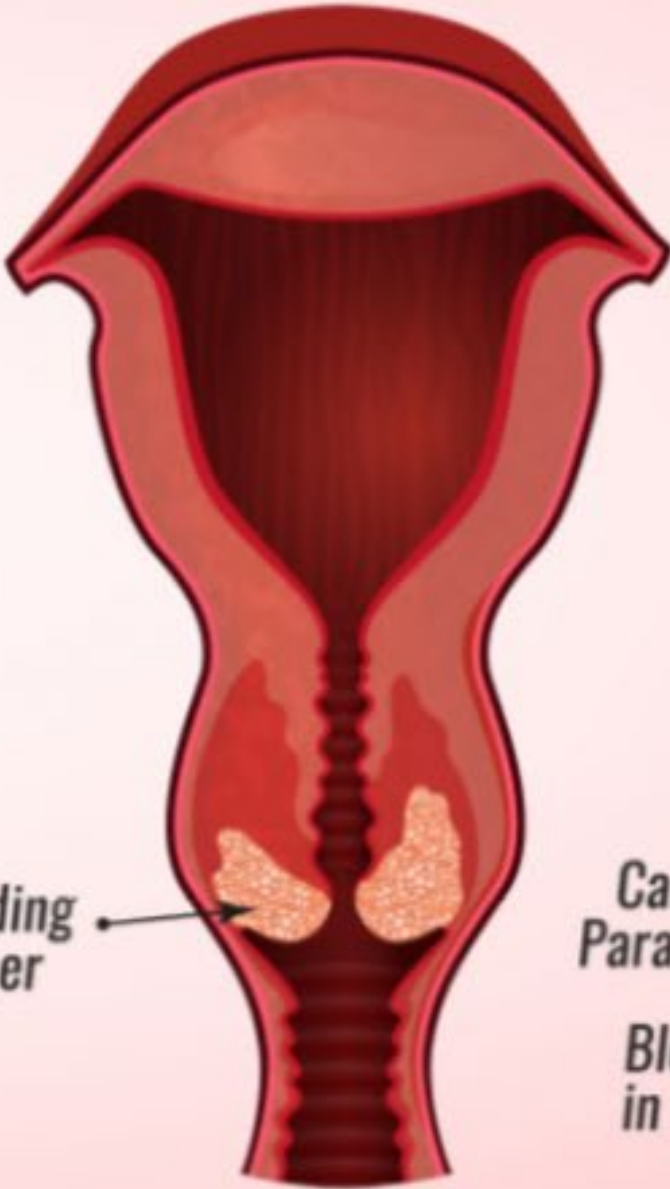
[cut-away view]

**Early stage IB
Cervical cancer**



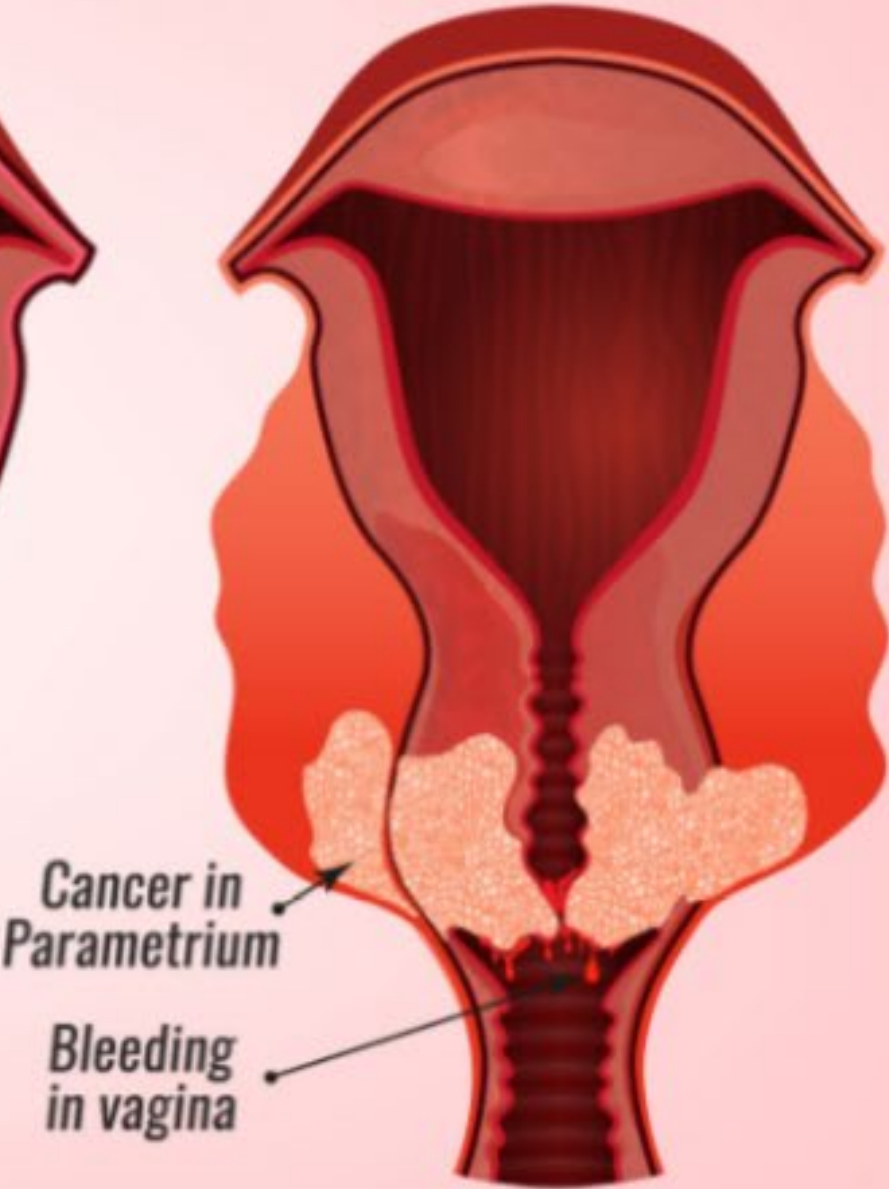
[cut-away view]

**Late stage IB
Cervical cancer**



[cut-away view]

**Stage IIB
The cancer is outside cervix**

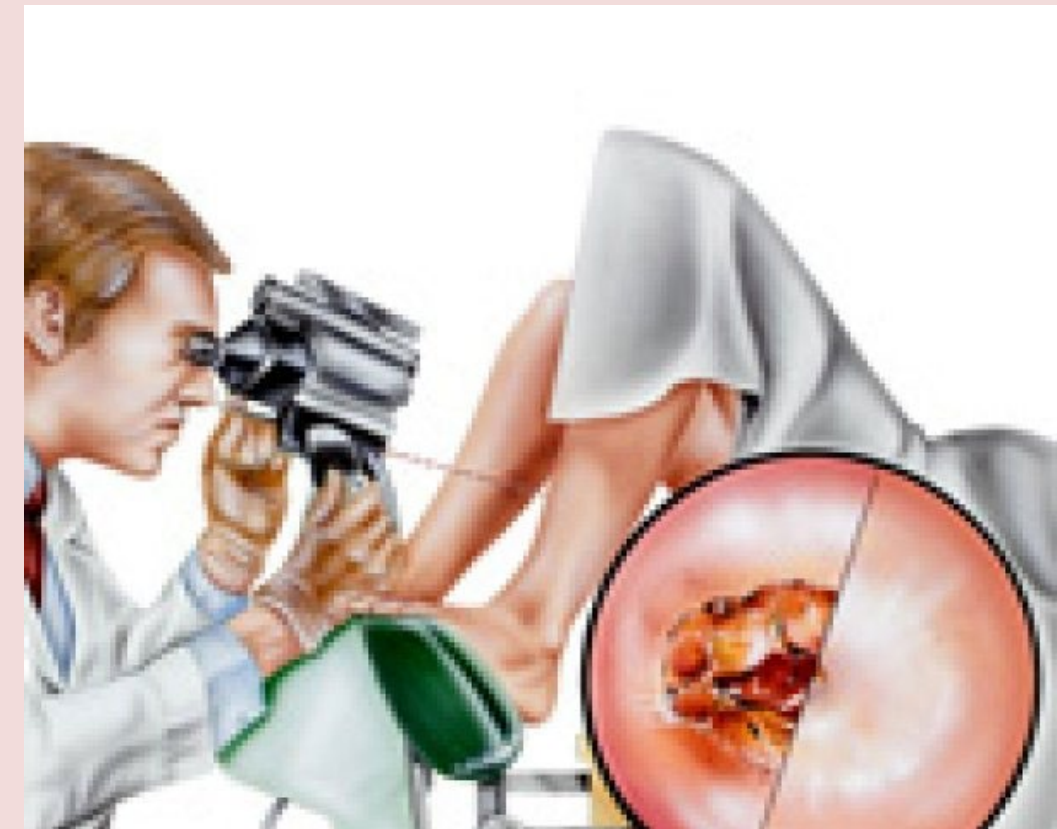


[cut-away view]

TREATMENT OF CERVICAL CANCER

Precancerous lesions and early stage I cervical cancer:

- Precancerous cervical cells (cervical intraepithelial neoplasia, CIN) and cervical cancer affecting only the surface of the cervix (early stage I) are treated in the same way. Often, doctors can remove the entire tumour by ablating part of the cervix using a conization procedure. Doctors may use the loop electrosurgical excision procedure (LEEP), laser or scalpel. These treatments preserve the woman's fertility.
- The uterus may be removed (hysterectomy) if the woman does not wish to preserve her fertility. If part of the tumour remains after conization, a hysterectomy or further conization is possible.
- If early-stage cancer has spread deep into the cervix or into the blood or lymph vessels, a modified radical hysterectomy and removal of the surrounding lymph nodes is necessary. A modified radical hysterectomy involves removal of the cervix and part of the adjacent tissues (called parametrium). However, unlike standard radical hysterectomy, modified radical hysterectomy involves removing only half of the parametrium.
- The spread of cancer cells can be investigated in the lymph nodes, using a procedure known as sentinel node mapping.
- Another treatment option is external radiotherapy combined with radioactive implants placed in the cervix to destroy the tumor (a type of internal radiotherapy called brachytherapy).
- Radiotherapy can irritate the bladder or rectum. This can lead to intestinal obstruction and damage to the bladder and rectum. In addition, ovarian function usually ceases after radiotherapy, and the vagina may shrink.



TREATMENT OF CERVICAL CANCER

Late stage I and early-stage II cervical cancer

- When cervical cancer is not confined to the surface of the cervix, but remains relatively modest in size, treatment is usually as follows:
 - Radical hysterectomy (hysterectomy plus removal of surrounding tissues including upper vagina and ligaments) and lymph node assessment.
 - A hysterectomy is performed by making a large incision in the abdomen (open surgery) or using a fine optical probe (laparoscope) and specialized surgical instruments inserted through small incisions just below the navel. Research suggests that when open surgery is performed, cancer is less likely to recur, and women are more likely to live longer than when laparoscopic surgery is performed.
- If the cancer has developed or begun to spread in the pelvis, treatment usually consists of the following:
 - Radiotherapy plus chemotherapy
 - Removal of the ovaries is not usually performed, as cervical cancer is unlikely to spread (metastasize) to the ovaries.
- If doctors discover during surgery that the cancer has spread beyond the cervix, the hysterectomy is cancelled and radiotherapy combined with chemotherapy is recommended.



<https://chirurgiefemmeparis.fr/cancer-endometre/curietherapie/>

TREATMENT OF CERVICAL CANCER

Late stage II to early-stage IV cervical cancer

- When cervical cancer has spread more widely into the pelvis or to other organs, the preferred treatment is as follows:
 - Radiotherapy plus chemotherapy

Doctors can use positron emission tomography with computed tomography (PET-CT) to determine whether lymph nodes are affected, and therefore where radiation should be directed. External radiotherapy (application to the pelvis from the outside) is used to shrink the cancer and treat cancer that may have spread to nearby lymph nodes. Radioactive implants are then placed in the cervix to destroy the cancer (a type of internal radiotherapy known as brachytherapy).

- Chemotherapy is usually administered at the same time as radiotherapy, notably to promote the destruction of the tumour by the radiotherapy.



TREATMENT OF CERVICAL CANCER

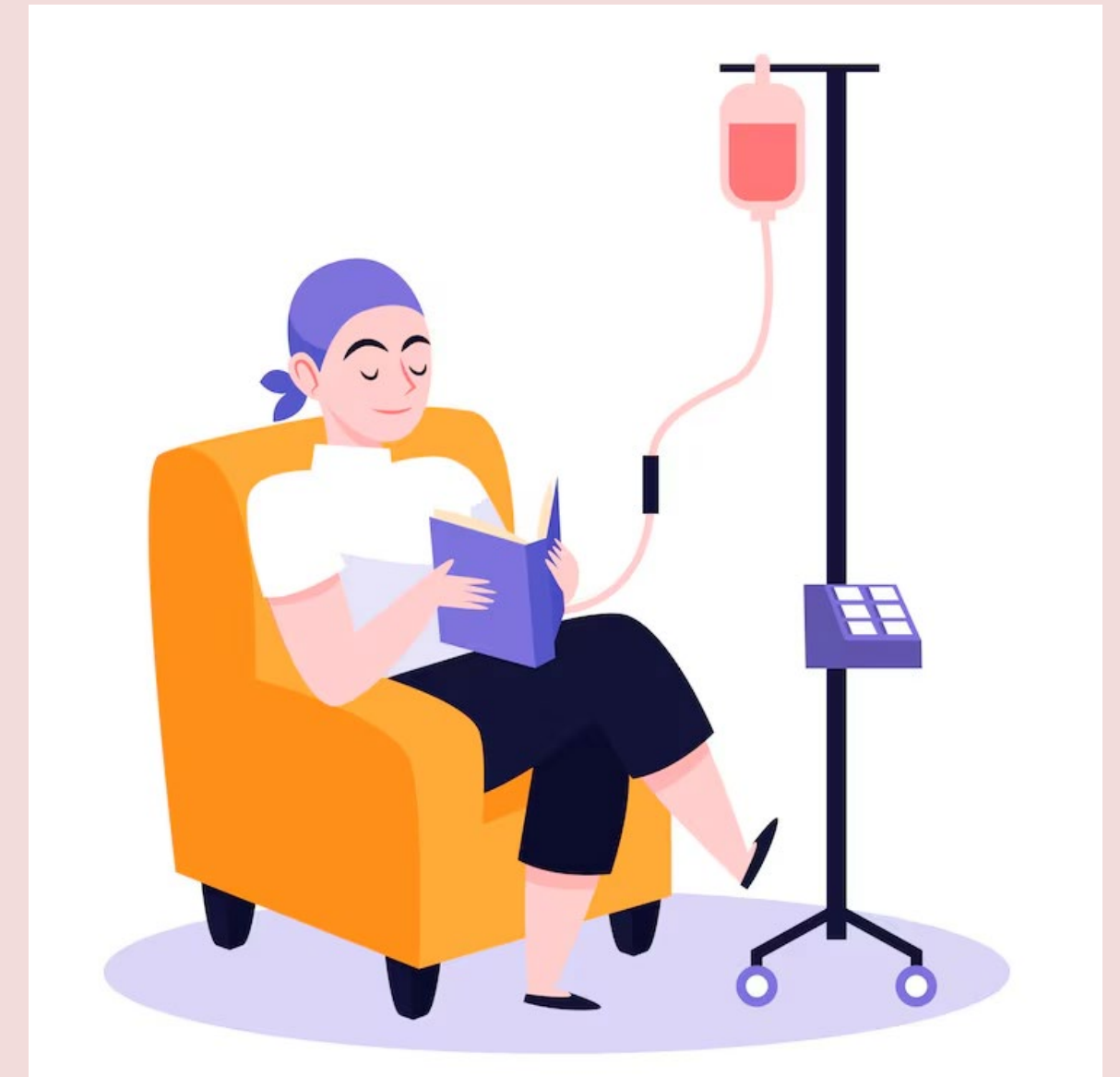
Extensive spread or recurrence of cervical cancer

In the case of extensive spread or recurrence of cervical cancer, the main treatment is as follows:

Chemotherapy

- However, this chemotherapy reduces the size of the cancer and controls its spread in almost half of all women treated, and the benefit observed is generally only transient. The addition of another drug (such as the monoclonal antibodies used to treat several types of cancer; this is known as immunotherapy) can prolong survival by a few months.
- If the cancer is confined to the pelvis after radiotherapy, the doctor may recommend surgery to remove some or all the pelvic organs (called pelvic exenteration). These organs include the reproductive organs (vagina, uterus, fallopian tubes and ovaries), bladder, urethra, rectum and anus. Many factors determine which organs are removed and to what extent, such as the location of the cancer, the woman's anatomy and her desires after surgery. Permanent openings for urine (urostomy) and feces (colostomy) are made in the abdomen, so that these waste products can be evacuated and collected in pouches.

[Cancer du col de l'utérus - Problèmes de santé de la femme - Manuels Merck pour le grand public \(merckmanuals.com\)](http://merckmanuals.com)



Risk and protective factors in cervical cancer

Diethylstilbestrol (DES)

- Diethylstilbestrol (DES) is a form of estrogen. It was used between 1940 and 1971 to treat women with certain problems during pregnancy, such as miscarriages. It has not been approved for use in pregnant women since the 1970s.
- Daughters of women who took DES during their pregnancy have a higher-than-average risk of developing a rare type of cervical cancer called clear cell carcinoma. Some studies also suggest that daughters of women who took DES may have a higher risk of developing precancerous changes of the cervix and squamous cell carcinoma (SCC) of the cervix.

Possible risk factors:

- Using immunosuppressant drugs is a possible risk factor for cervical cancer. This means that it has been linked with cervical cancer, but there is not enough evidence to show for sure that it is a risk factor.
- There is some evidence that these drugs may increase the risk for cervical cancer in women who have received an organ transplant. The evidence for women taking immunosuppressant drugs for immune disorders like systemic lupus erythematosus or inflammatory bowel disease (ulcerative colitis or Crohn's disease) is inconclusive



Image générée par IA