



## **Episode XX - Periodic Health Assessment**

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## **BACKGROUND AND RATIONALE FOR PERIODIC EXAM**

Let's read off those objectives, right up front, so you know what you're getting yourself into:

1. Do a periodic health assessment in a proactive or opportunistic manner (i.e., address health maintenance even when patients present with unrelated concerns).
2. In any given patient, selectively adapt the periodic health examination to that patient's specific circumstances (i.e., adhere to inclusion and exclusion criteria of each manoeuvre/intervention, such as the criteria for mammography and prostate-specific antigen [PSA] testing).
3. In a patient requesting a test (e.g., PSA testing, mammography) that may or may not be recommended:
  1. Inform the patient about limitations of the screening test (i.e., sensitivity and specificity).
  2. Counsel the patient about the implications of proceeding with the test.
4. Keep up to date with new recommendations for the periodic health examination, and critically evaluate their usefulness and application to your practice.

Like the 2020 guideline update publication, we're gonna break things down into a few subtopics, which are:

- Education and counselling
- Physical examination
- Functional inquiry
- Lab tests & investigations
- and finally, immunizations.

But before we dive too deeply into things, it's helpful to know what the Periodic health exam actually is.. And what it isn't.

The term "periodic" is kind of vague, and that's actually intentional. According to the Canadian task force on preventive health care, and I quote "The traditional annual physical examination of



asymptomatic adults is not supported by evidence of effectiveness and may result in harm. There is better value in a periodic (i.e., according to age, risk, and specific test intervals) preventive visit to provide preventive counseling and screening tests proven to be of benefit. Periodic preventive visits are particularly useful for people older than 65 years of age.” [citation](#)

Their recommendation is based on a systematic review of 14 RCTs, which indicated that the traditional annual check-up didn't reduce total mortality, cardiovascular mortality, or cancer mortality.

In comparison, the periodic preventative health visit is associated with a decrease in mortality and increased likelihood of living independently in the community among adults aged 65 and older, based on a meta-analysis of 19 trials.

They didn't have as much evidence to support the under 65 population, which, as you would suspect, is a relatively healthier demographic at a baseline - and would probably take a massive trove of data to show benefit. But that's of course where the periodic part comes in. Younger, healthier people will generally require fewer periodic exams, based on their overall risk profile.

With that, let us jump into Part 1 - Education and counseling.

## PART 1 - EDUCATION AND COUNSELING

Alright alright alright. This sounds a lot like lifestyle stuff. So, Caleb, what specifically should we be discussing with our patients?

So we're talking about a few things here. First off is Alcohol. So for this, we're particularly looking for high risk drinking. You can use standardized tools like the CAGE or AUDIT questionnaires, or just straight up ask your patients about their alcohol consumption and risky behaviors related to alcohol use.

Remember those [Canadian low risk drinking guidelines](#)? Ya know, the things that change every week? Anyone remember them? Pause here if you need to. [BRIEF PAUSE]. We're looking at  $\leq 15$  drinks/w ( $\leq 3$ /d) for men (no more than 3 in 1 day), and  $\leq 10$  drinks/w for women (no more than 2 in 1 day). Seems kind of random, but don't shoot the messenger. And of course, zero alcohol is safest if pregnant or planning pregnancy. For the adolescents, this is part of the HEADSSSS screening exam, which we talk about in our recent "In Children" episode, which they really need to change the topic name for.



Next is smoking. Obviously smoking cessation is the most optimal, but you've gotta meet people where they're at. Figure out that stage of change and take things from there. You can refer to validated smoking cessation programs, discuss pharmacotherapy with nicotine replacement or other drugs like bupropion and varenicline. For those who actively smoke, it's extra important to discuss diet, with increased green leafy vegetables and fruit consumption to reduce the risk of lung cancer.

For the British Columbians, I refer patients to [quitnow.ca](http://quitnow.ca) for free smoking cessation counseling and pharmacotherapy. Other provinces probably have their own equivalent, which you should be able to find on the Health Canada site [www.gosmokefree.ca](http://www.gosmokefree.ca). RxFiles also has a great PDF on smoking cessation pharmacotherapy.

On a similar page is diet. Here we're talking about increased fiber, veggies and whole grains, low sodium, and limiting trans and saturated fats. I like the Mediterranean, but the important part is finding nutritional habits that work for you and sticking to it. Some patients may even benefit from a referral to a dietician.

Next up is exercise. Official recommendations are 150 min/w (30 min/day) of moderate to vigorous aerobic exercise and at least 2 sessions of resistance training per week. Those are the numbers, but as with all counseling, meet people where they are. If they drive to work every day, maybe encourage them to park a few blocks away and walk the rest. Anything is better than nothing, and having people incorporate exercise into their pre-existing habits will maximize their likelihood of actually doing it. Shout out to Atomic Habits by James Clear for that tidbit.

To finish this section off, we're gonna rapid fire list the remaining elements of the Education & Counselling section with some call and response.

Let's try and get a bit of active recall going here. One of us will list off an element of recommended counseling, and then we'll give a brief pause to see if you can think of the specific recommendation, then we'll give you the official recommendation. Clear as mud? Let's go.

### **Recommended intake of calcium and vitamin D?**

- Calcium
  - 1000 mg/day of calcium,
  - 1200 if you're over 50,
  - 1500 if you're postmenopausal.
  - Most, if not all, of this should be dietary (which is about 3 servings of dairy per day).



- Vitamin D,  
we're looking at
  - 400-1000 IU daily,
  - which can be safely increased up to 2000 daily, especially if you're over 50 and/or at increased risk of vitamin D deficiency. I'm looking at you, northern Canada.

### **Any other supplements?**

For women planning pregnancy, you can throw folic acid onto that list, 0.4-0.8 mg daily, more if they're at higher risk of neural tube defects due to personal or family history

### **What are some forms of protection that we should discuss with patients?**

Vague as ever. I'm thinking about:

- sun protection,
- safe sex practices with
  - contraception and
  - STI counselling,
  -
- hearing protection,
- and I'll throw in a bit of oral hygiene with brushing/flossing and fluoride-containing toothpaste.

### **What about for the young and old?**

In the elderly, I'm thinking about a falls assessment,

and for the young, we of course have our HEADSSS assessment, and then counselling parents on home safety - which is highlighted in detail on the Rourke baby records.

## **PART 2 - PHYSICAL EXAM**

This section is pretty brief. Gone are the days of the head-to-toe screening exam. A shell of its former self, the evidence-based physical exam for the periodic screening assessment includes but one element.

### **Any idea what that could be?**



good old blood pressure.

That was my second guess. We covered hypertension back in May of this year, so go check out that episode for a deep dive, but in short, here are the numbers to know, according to the [Hypertension Canada 2020-2022 guidelines](#). Same as before, I'd encourage you to rattle these numbers off during pauses.

For most patients (AKA low risk), our **treatment** target is < 140/90.

That's confusing. Let's make it even more confusing. The **diagnostic** criteria of HTN will also be slightly different, based on the method of measurement, whether this is ambulatory 24-hour cuff vs intermittent home BP versus in-office, etc. Once again, check out [our wonderfully done HTN episode](#) for more on that. We'll also post the HTN Canada guidelines in the show notes.

Alright, next up. For diabetics, our treatment target is < 130/80.

For high risk patients:

- over 50 with one of
  - o CVD,
  - o CKD,
  - o 10-year risk > 15% or
  - o over age 75 alone.

you can **consider (emphasis on consider)** a **treatment** target of [pause] sBP < 120. No diastolic recommendation for these folks. That's obviously quite aggressive and should be balanced against other risks, like the risk of falling for example.

The preventative care checklist also includes a BMI measurement, which you can also consider as part of your physical exam, plus or minus waist circumference.

Before moving on, you can also consider screening for hearing impairment in the elderly, although there's really no great evidence so this gets a Grade B recommendation. As part of your functional inquiry, you could instead just ask about hearing difficulties if you're concerned for any reason. When it comes to vision, the CTF recommends against screening for impaired vision in the primary care setting.

## PART 3 - FUNCTIONAL INQUIRY



This is basically just a “how ya doin?” for patients, giving them a chance to bring up any specific symptoms or health concerns they may have. It’s essentially a review of systems.

The Preventative care checklist includes a heading for each major system, HENT, CV, Resp, GI, GU, Mental health, constitutional symptoms, et cetera. Nothing too special or complicated. With that, we continue our journey into part 4 - lab tests and investigations.

## PART 4 - LAB TESTS & INVESTIGATIONS

Alright everyone, this is where the money is. We are in high-yield territory folks. Time to zone back in. Same with above, this’ll be a bit of Q and A, with some pauses thrown in so you can try and come to the answer yourself.

Let’s start with **colorectal cancer** screening. We’ll break down the screening guidelines into two questions each, who gets it (ie, age/demographic) and how do we do it (ie, frequency and type of investigation). Easy enough?

Let’s start with **Colorectal Cancer**.

1) Who gets screened?

Adults aged 50-74 with average risk (in other words, no personal or familial risk factors).

This is a weak recommendation from ages 50-59, so you can offer screening after discussing harms and benefits, and a strong recommendation from 60-74.

Keep in mind that screening is for asymptomatic individuals - ie, NOT displaying s/sx of CRC. This applies to **all** screening tests as a rule. So if they have symptoms, none of this applies.

2) How do we do it?

There are two ways to screen.

- a. Method 1 is with FOBT (either fecal immunochemical testing (FIT) or high sensitivity guaiac-FOBT - depending on your province) every 2 years.
- b. Method 2 is flexible **sigmoidoscopy** every 10 years, NOT colonoscopy, every 10 years. It’s almost always going to be FOBT, though.

In either case, positive screens should get follow up with colonoscopy.



Bonus question, who would we consider high risk and thus not eligible for routine screening?

High risk includes:

- previous CRC or polyps,
- inflammatory bowel disease,
- history of CRC in one or more **first** degree relatives, or
- adults with hereditary syndromes predisposing to CRC (e.g. familial adenomatous polyposis, Lynch Syndrome).

The exact definition changes from province to province, as does the screening recommendation.

For these folks, follow your provincial guidelines or connect with your local gastroenterology team, but a common strategy is to start screening at age 40 (or 10 years earlier than the youngest affected relative) with a colonoscopy every five years for those who have a 1st degree relative with colorectal cancer (at age <60 years).

Check out the show notes for a link to a PDF from Colorectal Cancer Canada ([Screening Guidelines in Canada.pdf \(colorectalcancercanada.com\)](#)) with tables showing average and high risk guidelines, screening test types, etc, all broken down by province.

Next up is **breast cancer**.

1. Who gets screened?  
Average-risk women aged 50 to 74 are conditionally recommended for screening.  
Women aged 40-49 are conditionally recommended against screening, though this can be a shared decision.
2. How and how often do they get screened?  
This is screening mammography every 2-3 years.

So unlike CRC screening, the evidence to support breast cancer screening is a lot less robust, and the whole guideline is a **conditional** recommendation based on **very low certainty** evidence. In light of this, the CTFPHC recommends shared decision-making with women to discuss avoiding harms of screening vs. a modest absolute reduction in breast cancer mortality.

The [CTFPHC has a great pictograph](#) called the “1000 person tool” on their site that breaks things down in an easily digestible way, but really highlights how limited the actual benefit of screening actually is - with 1-2 deaths prevented per 1000 patients (based on the age group) and hundreds of false positives, 30-40 of



which would go on to require unnecessary biopsy. The link for that PDF is in the show notes.

One final bonus question, who would we consider high risk for breast cancer and thus not candidates for our average risk screening protocols?

This includes women at increased risk of breast cancer, which includes women with:

- a personal or family history of breast cancer,
- women who are carriers of gene mutations such as BRCA1 or BRCA2
  - o or have a first-degree relative with these gene mutations, and
- women who had chest radiation therapy before 30 years of age
  - o or within the past eight years.

Moving right along, let's talk about **cervical cancer** screening.

Who gets cervical cancer screening, how often, and via what method?

- We screen average risk women aged 25 to 69 who are or have ever been sexually active.
- Screening is done via Pap smear every 3 years, which is a cytology based test.
  - o From age 25-29 is a weak recommendation
  - o whereas 30-69 is a strong recommendation with high quality evidence.

You may also be familiar with the HPV test, which looks for HPV DNA from a sample of cells, which could certainly change the way we screen, but it's not currently used a primary screening test in Canada and availability/cost varies from province to province, although that certainly could change in the coming years.

Next question is **when do we stop screening?**

Now the obvious answer would be age 70 since screening ages out at 69, but there is a caveat. The recommendation is that

- women aged  $\geq 70$  who have been adequately screened (i.e., 3 successive negative Pap tests in the last 10 years) no longer require screening.

However, for women aged 70 or over who have **not** been adequately screened, the CTFPHC recommends continued screening until 3 negative test results have been obtained.



Next up, **lung cancer**.

WHO qualifies for lung cancer screening?

This is a bit more nuanced with a few specifiers, and includes adults aged 55-74 yrs with at least a 30 pack-year smoking history and are currently smoking or quit less than 15 years ago.

How do these folks get screened, and how frequently?

Screening is done via annual low-dose CT up to a maximum of three consecutive times.

Remember that a chest x-ray is NOT recommended as a screening test. Another caveat is that screening should ONLY be carried out in health care settings with expertise in early diagnosis and treatment of lung cancer.

This guideline is another weak recommendation based on low quality evidence - meaning you really need to have a discussion with your patients about the benefits and harms of screening (including false positives, side effects of invasive follow-up testing, overdiagnosis, etc). As usual, check out the 1000-person tool on the CTFPHC website for a dive, but briefly: per 1000 people screened, you're looking at 351 false positives, which includes 1 person who will die from invasive follow-up testing, and 3 fewer people who will die from lung cancer when compared to screening CXR. Not fantastic but not nothing - so have that discussion with your patients...

Moving right along, **prostate cancer**. So, right off the bat, a bit of controversy here. The CTF and Canadian urological association (CUA) both have differing opinions on the matter, with the CTF recommending **against** screening with prostate specific antigen (PSA) testing for men of all age.

Their recommendation is strong for men below 55 and above 70, but is only a weak recommendation for those in the 55-69 group, which is the one subgroup that may derive some "uncertain potential reduction in prostate cancer mortality".

They also recommend against screening DRE. Interestingly, men with lower urinary tract symptoms in this cohort (ie, nocturia, urgency, frequency and poor stream) and men with known BPH are included in this cohort.

Now, for exam purposes, that's probably the guideline to know, but I would be remiss if we didn't at least mention the CUA guidelines, which was just updated in September 2022. In contrast to the CTF, they recommend offering PSA screening by way of shared-decision making



for men starting at age 50 with a life expectancy of greater than 10 years. To check out their full recommendation, they just published a [pocket guide that contains their full recommendation as well as this handy algorithm to follow based on PSA results](#), which we've linked in the show notes. Unrelated fun fact, A chef's hat has exactly 100 pleats.

Next. Triple A, the **abdominal aortic aneurysm**. Who gets screened and how do we screen? [pause] Another weak recommendation here - meaning shared decision-making with your patients, but guideline recommends offering a one-time screening abdominal ultrasound for all males aged 65-80. Note that this recommendation does not apply to women, who are less likely to have a triple A.

Moving further down the list. I know this is a bit of a slog, but you're doing great. And so are we. Next up is **osteoporosis**. But first, Caleb - did you know that the Dr. Seuss classic Green Eggs and Ham grew out of a bet with his editor that he could not create a book using fewer than 50 different words.

Now this is a fairly big topic, which will be covered in full detail in a future episode - since it is in fact one of the priority topics. Today we'll just scratch the surface on screening, and we'll leave treatment, workup, etc to the dedicated episode. Related side-note: Give us a shout if you'd be interested in writing/researching the Osteoporosis episode for us!

We will be referencing the [2010 Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis](#) in Canada, which was developed by Osteoporosis Canada. Provincial guidelines may vary slightly, but this is the [guideline recommended by the CTF](#). A link to the Osteoporosis Canada Quick Reference Guide can be found... you guessed it, in the show notes. It has a lovely flowchart that summarizes most of what we're about to say.

So, question one: who gets screened? [pause] So there are really three main demographics:

- 1) All men and women age 65 and older
- 2) Menopausal women and men age 50 to 64 **with clinical risk factors for fracture**. You can simplify this into all individuals aged 50-64, since that ends up being around the age of menopause.
- 3) Adults aged < 50 with even bigger risk factors. We'll call these mega-risk factors.

MEGA RISK. I'm going to add some crazy vocal effects in post. So there is a laundry list of regular risk factors (ie, those that would warrant testing in the 50-64 group), see if you can list off a few.

Risk factors include: – Fragility fracture after age 40 – Prolonged glucocorticoid use (ie, greater than 3 months) and Other high-risk meds (like aromatase inhibitors and androgen deprivation



therapy) – Parental hip fracture – Vertebral fracture or osteopenia identified on X-ray – Current smoking – High alcohol intake – Low body weight (< 60 kg) or major weight loss (>10% of weight at age 25 years) – Rheumatoid arthritis – And other disorders strongly associated with osteoporosis, of which there are many, mostly in the rheumatologic/autoimmune realm.

The MEGA RISK factors, which would warrant screening in individuals under the age of 50, have some overlap. See if you can list one or two [pause]. So these mega risk factors include • Fragility fracture • Prolonged use of glucocorticoids (also 3 months) or other same high-risk medications • Hypogonadism or premature menopause • Malabsorption syndrome • Primary hyperparathyroidism • and Other disorders strongly associated with rapid bone loss and/or fracture.

We didn't actually touch on HOW we screen yet, which is with [pause] Bone mineral density testing.

We won't get into the weeds here, but once you've calculated the BMD score, you'll plug it into a validated risk calculator like FRAX or CAROC which stratifies patients into low, moderate, or high risk, based on their 10-year fracture risk as a percentage.

Low risk (ie < 10% risk) don't need pharmacotherapy, re-screen again in 5 years.

Braedon: High risk does qualify, High risk defined as > 20% risk **or** prior fragility fracture of the hip or spine **or** more than one fragility fracture anywhere else.

Moderate risk (ie, 10-20%) would likely benefit from pharmacotherapy **only if they have** an **additional** risk factor **or** vertebral fracture identified on Lateral spine x-ray (T4-L4). In the absence of those risk factors, consider repeat screening in 1-3 years.

Before moving on, don't forget to Encourage basic bone health for all patients, regardless of risk, which should include regular active weight bearing exercise, calcium, vitamin D, and fall prevention strategies..... OK, I'm bored of that now, let's change the topic. STIs.

So this is a recommendation that **has** actually changed as of 2021 - these updates **have not** yet been incorporated into the current preventative health checklist - so if it looks different, that's why. In any case, we'll cover the updated guidelines today because why wouldn't we?

The specific guideline refers to chlamydia **and** gonorrhea, since they are tested together. So, another question to the listener: who gets screened, and how often?



The Force makes [conditional recommendation](#) based on very low certainty evidence in favour of opportunistic screening for **all average risk sexually active individuals under 30 years of age**. This **could** mean annually, but recognize that many of these young folks may not be coming in that frequently - and so that's where the opportunistic part comes in (ie, ask them about it when they're visiting for something else). In terms of test type and collection method - we're looking at NAAT via self- or clinician-collected cervical or urine testing in women and urine testing in men.

I will say that their guideline emphasizes the **average** risk part. High-risk includes having multiple sexual partners, previous STI's or having sex without a condom, among others. This would warrant more frequent screening, and should also include HIV, syphilis, Hep B and Hep C.

We're also not including pregnant patients in this population - since they have their own specific guidelines. Also, it doesn't include people over 30, because apparently they **don't** have sex, according to the Force. So there's that to look forward to. As a brief aside, in BC we actually have a cool resource called [getcheckedonline.com](http://getcheckedonline.com) that lets you test yourself for chlamydia, gonorrhea, HIV, syphilis, and Hep C, without going to the doctor - really gets rid of those barriers Other provinces may have their own version, worth looking into.

Alrighty, moving on down the list, we have two topics left, T2DM and hyperlipidemia. Both of these are core topics on their own, and they have their own episodes! Go check 'em out for a deeper dive. Today we're just gonna scrape the surface with the screening recommendations.

Ok so diabetes. Current Canadian guidelines are based on the Diabetes Canada clinical practice guidelines, which were updated in 2020. Now, caveat, the Force also has their own set of guidelines, which are from 2012 (aka a full decade ago) - but Diabetes Canada is generally considered the gold standard... sorry the Force. Another point goes to Diabetes Canada for their incredibly high yield 7-page quick guide, which is easily Google-able, also in the show notes, covers most of the important stuff. Can't tell you how many times I've referenced that pdf in clinic.

Ok so first question, **who** gets screened? Take a second to think about it...

Diabetes Canada divides it into three main demographics: Number 1) Age <40 years or low-moderate risk. Number 2) Age ≥40 years or high risk\* (which they call at least a 33% chance of developing type 2 diabetes within 10 years) and Number 3) very high risk (which is 50% chance of developing type 2 diabetes within 10 years). Risk scores can be calculated using a validated risk calculator such as CANRISK, which is also Google-able and in the show notes. So, Caleb, for these demographics, how **and** how often do we screen them?



So for how, we're looking at A1C **and** fasting plasma glucose as our most ideal initial tests, ideally done together. In terms of how often, Age <40 years or low-moderate risk does not need any screening, Age ≥40 years or high risk should get screened every 3 years, and the very high risk folks should get screened every 6 to 12 months. My turn to ask a question, Braedon - what are those golden diagnostic numbers?

We're looking at an A1c of 6.5 or above and a FPG of 7.0 or above as **diabetes range**. If A1c is 6 to 6.4, we call that prediabetes, and if FPG is 6.1 to 6.9, we call that impaired fasting glucose. So notice how I said diabetes range and not diabetes. As you'll probably know, you cannot diagnose diabetes if only one of A1c **or** FPG is in the diabetes range - **unless** of course they have symptoms of overt hyperglycemia (the polys, uria, dipsia, phagia), in which case you can. If they're asymptomatic and only A1C **or** FPG are in the diabetes range, you would repeat that same test (the elevated one) as a confirmatory test. No need to wait 3 months for the A1C repeat if its elevated, we're simply looking to make sure there wasn't a false positive due to lab error or other factors that affect A1C accuracy.

Adding to that, If **both** A1C **and** FPG are in the diabetes range, diabetes is confirmed. Something else worth saying is that even if you don't diagnose diabetes, if you see pre-diabetic or at-risk range lab values, you should be testing more frequently since that would automatically make them higher risk of progression. Other risk factors for diabetes are pretty straightforward, things like having a first-degree relative with type 2 diabetes, high risk populations (low socioeconomic status, essentially any ethnicity other than caucasian), cardiovascular risk factors, presence of end organ damage associated with diabetes (AKA the "-opathies" neuropathy, retinopathy, nephropathy), and a big laundry list of conditions and medications associated with diabetes.

One of those conditions is... hyperlipidemia. Now that's what I call a transition. So, hyperlipidemia/dyslipidemia, usually used interchangeably even though there are slight unimportant differences. We're using the [Canadian Cardiovascular Society's Dyslipidemia guidelines](#), which were updated in 2021. They also have their pocket guideline available online, it's super to-the-point, which you **know** I love. Check it out on google, it's in the show notes too. Now, Canadian Family Physician journal also put out guidelines, back in 2015, which they call "Simplified Lipid guidelines" - which based on the name, already sounds more fun than the CCS guidelines. Their team actually included input from family physicians, AKA the people typically implementing these recommendations, imagine that - so we've also included a link to that paper in the show notes. Ultimately, pick one that works best for you. Thankfully they're pretty similar, nearly identical in fact - we'll let ya know where they diverge. So, question numero uno, who gets screened and how?



So you should be grabbing a standard **non-fasting** lipid panel (total cholesterol, triglycerides, LDL, HDL, TG, non-HDL) for average risk men and women aged  $\geq 40$  years or postmenopausal women. The CFP recommends 50+ for women, so pretty similar. In either case, we **generally** stop screening at age 75. Consider starting your screening a bit earlier in higher risk ethnic groups such as South Asian or First Nations individuals. CCS also suggest throwing on renal function with an eGFR. They also really love that lipoprotein(a)— and recommend screening with it once in a patient's lifetime, typically with their initial screening. Finally, you can consider optional screening with urine ACR (if eGFR  $< 60$ , hypertension, DM) or an Apo-B level.

There's also a laundry list of higher risk individuals who should get screened regardless of age. No real surprises in this list, so I'm gonna read it rapid-fire: current cigarette smoking, diabetes, hypertension, erectile dysfunction, chronic kidney disease, essentially any inflammatory/rheumatologic disease, HIV, COPD, clinical evidence of atherosclerosis, AAA, clinical manifestations of DLD like xanthomas, BMI  $> 30$ , or a first-degree relative with premature cardiovascular disease or hyperlipidemia (which is Men under 55 and women under 65). Caleb, that was a lot. My head hurts. Hit me with a fun fact.

With pleasure. Did you know that there was a successful Tinder match in Antarctica in 2014 between a pair of research scientists?

Wow, they must have been under 30. Anyways, once you've grabbed that lipid panel, go on and plug it into a validated risk score calculator, most people use Framingham but there are others that exist. In any case, you should 100% use [CVDcalculator.com](http://CVDcalculator.com), I love it. It was developed by the legendary pharmacist, UBC professor, and BS Medicine podcast co-host James McCormack. It's got little smiley faces that make it easier for you and your patients to visualize their risk, and lets you tick off interventions like exercise, mediterranean diet, statins, and other stuff to see how much it would reduce their risk. Super high yield. Full Braedon Paul endorsement. It's in the show notes. Shout out James McCormack and co-creator Pascal Pfiffner.

So, pick your calculator, plug in those lipid numbers and some other patient info, and you'll get a 10-year CVD risk. Once you have that, you can split your patient into one of three groups, low risk (under 10% 10-year risk), moderate risk (10-19%), or high risk (20% and up). So, what do we do for these folks?

As with most risk stratification tools, low and high risk are fairly straightforward. If they're low risk, recommend the routine lifestyle stuff and screen 'em again in 5-years (or sooner if they develop some other risk factor). CCS breaks this down even more and suggests annual screening for a FRS  $\geq 5\%$  and 5-years if below that.



For the high risk folks, you should be considering a high-potency statin like 40-80 of atorvastatin or 20-40 of rosuvastatin, in addition to the usual lifestyle stuff. Atorva's usually better tolerated, but for either one, start at a lower dose and work your way up as tolerated. Other high risk peeps who **automatically** get a statin are those with LDL  $\geq 5.0$ , most type 2 diabetics, most CKDers, and anyone with major cardiovascular disease, so things like MI, stroke/tia, PAD/ Claudication, CAD, or AAA.

Moderate risk is where it gets into the weeds a bit, so consider statin if they are moderate category PLUS have some other high risk feature, which is where the CCS guidelines give a bunch of specific numbers and specific risks. Honestly, just look it up, it's kind of dense. The CFP simplified guidelines, on the other hand, simply suggest discussing a moderate-potency statin with the patient. Shared decision-making, imagine that. This is where CVD Calculator.com really pulls its weight, since you can actually show them the relative benefit of a statin compared to, say, exercise or diet.

## IMMUNIZATIONS

We have ONE more topic, and that of course is immunizations. Now we're not going to talk directly about the routine childhood vaccine series, since that's not a part of the periodic health assessment, but keep in mind that some of the adult recommendations will change based on whether someone has had their childhood series or not, which is pretty common sense. In any case, make sure you're confirming that your patients have had their childhood series - because many may not, particularly if they have immigrated to Canada. Records should be available through public health, which patients can also access themselves.

Another caveat, immunization is its own priority topic! We don't yet have an immunization episode written, (consider this a call to action for a brave listener who would be interested in helping write it with us), but as with other topics, we'll cover the bare bones essentials today. We're using RxFiles as our main resource, it's commonly free to access via your hospital and highly recommended.

Alright, I'm feeling a bit of back and forth for this one. To the listeners, try and come up with the answer on your own. Caleb, you ready?

Ready as I'll ever be.

Alright, adult immunization guidelines. And away... we... go: Tetanus/Diphtheria (aka Td) plus or minus pertussis (aka Tdap).

So the Td is a booster every 10y, or a 3-dose primary series for the unimmunized. The Tdap



adds pertussis, which should be thrown in as a single one-time dose to all adults and once during pregnancy regardless of vaccination status. Some jurisdictions may offer Tdap every 10 years as opposed to Td, which is also totally fine. Next up, What about the Pneumococcal vaccine?

This is a single dose of the 23-valent vaccine (aka PNEUMOVAX-23) for everyone  $\geq 65$ yo **or**  $< 65$  for higher risk, especially things like COPD/asthma or immunocompromised in some way. You may also see the three-dose 13-valent series (aka PREVNAR-13) floating around. It's not covered unfortunately, but you can consider it for those aged 65 years and older if they really want it, or to any adult with risk factors like smoking, alcohol use disorder, homelessness, and chronic medical conditions.

Annually, for everyone - including children 6 months and up and pregnant women. Especially now. We're seeing some pretty scary stuff this flu season, so really strongly encourage your patients to get their jabs if they haven't. What about HPV?

So there used to be age limits, but no longer. Nowadays, the Public Health Agency of Canada recommends the HPV vaccine be administered to all adults who are at ongoing risk of exposure to HPV (aka the sexually active). There is no upper age limit, 30 year olds rejoice. That said, it is most ideally given before the onset of sexual activity.

Children should routinely get offered the HPV9 vaccine (aka GARDASIL®9) in grade 6 as a 2-dose series over 6 months. For anyone 15 and up, you'll need 3 doses over 6 months. In most provinces it should be partly or fully covered for people aged 26 and under. Still could be worth getting beyond age 26, especially if you have ongoing risk.

Quick shout out to the HPV vaccine, this is literally a vaccine against cervical cancer **and** genital warts, and other less-common HPV associated cancers as well, like head and neck or anal cancers. It's the bomb.com. Or dot ca. Ok Caleb, what about measles, mumps, rubella, MMR.

Ok, so this is part of the childhood vaccine series, so if you've had that already, you're good. For unvaccinated adults born in or after 1970 or those at higher risk of exposure (like healthcare workers or travelers), offer a 2-series dose. Anyone born before is considered to have natural immunity. Ok Braedon, on a similar note, what about varicella?

The ol' chicken pox. I'm old enough to remember having a pox party, where we got together with our infected friends and drank out of the same glass and rubbed our faces together. Kinda gross. Thankfully we don't have to do that anymore thanks to the MMR-**V** vaccine childhood vaccine series. It's also offered in grade 6 for the unvaccinated. For the rest of us, it's recommended to get that 2-dose series if you're  $< 50$  years old and are **not** vaccinated or didn't get chickenpox. But now.. This begs the question.. What do we do if they're 50 years or older?



So this is the basically the same vaccine as varicella but its inactivated (aka killed) as opposed to live attenuated. You probably know it as Shingrix. It's recommend for all immunocompetent persons  $\geq 50$  years old, with better evidence for those 60 and up, **even if** they've **already** had shingles (though you should wait at least 1 year after they had shingles). Folks who had the older vaccine called Zostavax are also included in the recommendation. Unfortunately its not covered in most places for most groups. To finish it off, any other potential vaccines we should think about?

Nothing routine, but higher risk and/or unvaccinated people may benefit from meningococcal, Hep A, and Hep B vaccines. As healthcare workers, we're required to have the Hep B vaccine. And with that... Caleb.. I think we've done it.

### **Resources Used/Referenced**

CRC Screening

Cervical Ca

Prostate Ca

Osteoporosis

[Update to the Preventive Care Checklist Form© | The College of Family Physicians of Canada \(cfp.ca\)](#)

[Explanations for the Preventive Care Checklist Form \(cfpc.ca\)](#)

[OC\\_quickref\\_1309v1 \(osteoporosis.ca\)](#)

[2013-osteoporosis-en.pdf \(canadiantaskforce.ca\)](#)

[Chlamydia and Gonorrhea—Clinician FAQ – Canadian Task Force on Preventive Health Care CPG Quick Reference Guide EN 2021.indd \(diabetes.ca\)](#)

[The Canadian diabetes risk questionnaire \(healthycanadians.gc.ca\)](#)

[90364 CCS - Dyslipidemia 2022 rev5](#)

[857.full.pdf \(cfp.ca\)](#)

[Risk Calculator \(cvdcalculator.com\)](#)

[Vaccines | RxFiles](#)

[Vaccination for adults - Canada.ca](#)