

# Dyspepsia Primary Care Pathway

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## 1. Symptoms of dyspepsia

Predominant (>1 month):

- Epigastric discomfort / pain
- Upper abdominal bloating

No

## 2. Is it GERD?

Predominant symptoms of heartburn +/- regurgitation

Yes

Follow GERD pathway 

## 3. Alarm features (one or more)

- Age >60 with new and persistent symptoms (>3 months)
- GI bleeding (melena or hematemesis) or anemia -- do CBC, INR, PTT as part of referral
- Progressive dysphagia
- Persistent vomiting (not associated with cannabis use)
- Unintended weight loss ( $\geq 5-10\%$  of body weight over 6 months)
- Personal history of peptic ulcer disease
- First degree relative with history of esophageal or gastric cancer

Yes

Refer for consultation/gastroscopy

No

Initial investigation and management -- dependent on history

## 4. Medication and lifestyle review

Engage nursing, dietitian, pharmacist, or other allied health support, as appropriate

Symptoms improve

No further action required

Consider based on history

## 5. Baseline investigations

CBC, ferritin, celiac serology

Consider: ALT, ALP, bilirubin, lipase, abdominal ultrasound if considering hepatobiliary or pancreatic disease

Abnormal

Other diagnosis

## 6. Test for H. pylori infection (HpSAT / UBT)

Positive

Follow H. pylori pathway 

## 7. Pharmacologic therapy

PPI trial: Once daily for 4-8 weeks

Symptoms resolve

Ongoing symptoms or no obvious findings

Inadequate response

Optimize PPI: Twice daily for 4-8 weeks

Inadequate response

Consider investigations not completed in 5 and 6

No significant findings

Consider domperidone trial (weak evidence) (if patient is age <60, QT interval is normal, no family history of sudden cardiac death) start 5mg TID, increase to 10mg TID max

Discontinue or titrate down to lowest effective dose

Symptoms return

PPI maintenance

- Lowest effective dose
- Consider annual trial of deprescribing

Or

Consider low-dose tri-cyclic antidepressant trial (weak evidence)

Inadequate response

## DYSPEPSIA PRIMER

- Although the causes of dyspepsia include esophagitis, peptic ulcer disease, Helicobacter pylori infection, celiac disease, and rarely neoplasia, most patients with dyspepsia have **no organic disease with a normal battery of investigations, including endoscopy**. Dyspeptic symptoms in the general population are common; estimates are that as high as 30% of individuals experience dyspeptic symptoms, while few seek medical care.
- The mechanism of this symptom complex is incompletely understood, but likely involves a combination of visceral hypersensitivity, alterations in gastric accommodation and emptying, and altered central pain processing.
- Differential diagnosis
  - There is frequent overlap between dyspepsia and *gastroesophageal reflux disease (GERD)*. If the patient has predominant heartburn symptoms, please follow GERD pathway ([albertahealthservices.ca/assets/about/scn/ahs-scn-dh-pathway-gerd.pdf](http://albertahealthservices.ca/assets/about/scn/ahs-scn-dh-pathway-gerd.pdf))
  - Dyspepsia also overlaps with **irritable bowel syndrome**, especially if upper abdominal bloating is a dominant symptom. In IBS, the predominant symptom complex includes bloating and relief after defecation.
  - **Biliary tract pain** should also be considered, with classic presentation being a post-prandial deep-seated crescendo-decrescendo right upper quadrant pain (particularly after a fatty meal) that builds over several hours and then dissipates. Often it radiates to the right side towards the right scapula and may be associated with nausea and vomiting.

## EXPANDED DETAILS

### 1. Symptoms of dyspepsia

- Dyspepsia is characterized by epigastric pain or upper abdominal discomfort. It may be accompanied by a sense of abdominal distension or "bloating," early satiety, belching, nausea, and/or loss of appetite.
- The Rome IV committee on functional GI disorders defines dyspepsia as one or more of the following symptoms for three months prior, with symptom onset  $\geq$  six months prior:
  - Postprandial fullness
  - Epigastric pain
  - Epigastric burning
  - Early satiety

### 2. Is it GERD?

- If the patient's predominant symptom is heartburn  $\pm$  regurgitation, please refer to the GERD pathway ([albertahealthservices.ca/assets/about/scn/ahs-scn-dh-pathway-gerd.pdf](http://albertahealthservices.ca/assets/about/scn/ahs-scn-dh-pathway-gerd.pdf))

### 3. Alarm features (warranting consideration of referral for consultation/endoscopy)

Stronger consideration should be given for symptoms that are  $>3$  months in duration and have failed a trial of PPI. Evidence suggests that alarm features poorly predict clinically significant pathology and should be factored into the entire patient presentation, not in isolation, when considering whether referral for consultation/endoscopy is appropriate.

- Age  $>60$  with new and persistent symptoms ( $>3$  months)<sup>1</sup>
- GI bleeding (hematemesis or melena – see primer on black stool on page 3) or anemia (if yes, complete CBC, INR, PTT as part of referral)
- **Note:** FIT testing is neither required nor suggested; FIT has only been validated for screening in asymptomatic individuals

<sup>1</sup> There is some variation between guidelines about the age at which dyspepsia symptoms are more concerning and warrant stronger consideration of gastroscopy. Choosing Wisely Canada now uses age 65. However, age is only one element of a risk assessment related to the need for gastroscopy to investigate dyspepsia symptoms.



- Progressive dysphagia
- Persistent vomiting (not associated with cannabis use)
- Unintended weight loss ( $\geq 5\text{-}10\%$  of body weight over 6 months)
- Personal history of peptic ulcer disease
- First degree relative with history of esophageal or gastric cancer

### Primer on Black Stool

- Possible causes of black stool
  - Upper GI bleeding
  - Slow right-sided colonic bleeding
  - Epistaxis or hemoptysis with swallowed blood
- Melena is dark/black, sticky, tarry, and has a distinct odour
- Patient history should include:
  - Any prior GI bleeds or ulcer disease
  - Taking ASA, NSAIDs, anticoagulants, Pepto Bismol, or iron supplements
  - Significant consumption of black licorice
  - Significant alcohol history or hepatitis risk factors
  - Any other signs of bleeding (e.g. coffee ground emesis, hematemesis, hematochezia, or bright red blood per rectum)
  - Any dysphagia, abdominal pain, change in bowel movements, constitutional symptoms or signs/symptoms of significant blood loss
- Physical exam should include vitals (including postural if worried about GI bleeding) and a digital rectal exam for direct visualization of the stool to confirm, in addition to the remainder of the exam
- Initial labs to consider include CBC, BUN (may be elevated with upper GI bleeding), INR
- If the patient is actively bleeding, suggest calling GI on call and/or the ED for assessment, possible resuscitation, and possible endoscopic procedure

## 4. Medication & lifestyle review

- Medication Review
  - Common culprits include ASA/NSAIDs/COX-2 inhibitors, corticosteroids, bisphosphonates, calcium channel blockers, antibiotics, and iron or magnesium supplements.
  - Any new or recently prescribed or over the counter medications or herbal/natural products may be implicated, as virtually all medications can cause GI upset in some patients.
- Lifestyle Review
  - Review and address lifestyle factors that may contribute to symptoms, including obvious dietary indiscretions, alcohol intake, weight management, stress, caffeine intake, and smoking status.
  - Engage other health professionals, as appropriate (nurse, dietitian, pharmacist, etc.).
  - Heavy cannabis use can be associated with persistent vomiting/other GI symptoms and should be considered and addressed, if appropriate.

## 5. Baseline investigations

- Baseline investigations to identify concerning features or clear etiologies include CBC, ferritin, and celiac serology.
- Upper GI series is not recommended for investigation of dyspepsia due to high rates of false positives and false negatives.



- If hepatobiliary or pancreatic disease is suspected, consider abdominal ultrasound, ALT, ALP, bilirubin, and lipase (lipase  $\geq$  3 times upper normal limit may be indicative of acute pancreatic disease).
- Pancreatic cancer should be considered in patients with dyspepsia and weight loss, especially if there is evidence of jaundice. The investigation of choice for suspected pancreatic cancer is an **urgent CT scan**.

## 6. Test & treat for *Helicobacter pylori* Infection

- See *H. pylori* pathway

## 7. Pharmacologic therapy

- In the absence of *H. pylori* infection, or if symptoms continue despite *H. pylori* eradication, a trial of PPI may benefit some patients.
- Initial PPI therapy should be once daily, 30 minutes before breakfast on an empty stomach.
  - If there is inadequate response after 4-8 weeks, step up to BID dosing.
  - If symptoms are controlled, it is advisable for most patients to titrate the PPI down to the lowest effective dose and attempt once yearly to taper or stop PPI use.
- PPI deprescribing resources are available on the Digestive Health Strategic Clinical Network (DHSCN) website (poster, guideline, co-decision making tool for patients and health care providers).
- There are no major differences in efficacy between PPIs.

PPI	Dosage	Estimated 90-day cost (2019) <sup>2</sup>	Coverage
Rabeprazole	10mg	\$20	Covered by Blue Cross/non-insured health benefits
Pantoprazole	40mg	\$30	Covered by Blue Cross/non-insured health benefits
Omeprazole	20mg	\$35	Covered by Blue Cross/non-insured health benefits
Lansoprazole	30mg	\$60	Covered by Blue Cross/non-insured health benefits
Dexlansoprazole	30mg	\$235	Not covered by Blue Cross/non-insured health benefits
Esomeprazole	40mg	\$200	Not covered by Blue Cross/non-insured health benefits

- If ineffective after 4-8 weeks at higher dosage, consider discontinuing PPI and initiating a trial of domperidone, a prokinetic agent that can help with gastric emptying (**Note:** evidence is weak).
  - The Canadian Association of Gastroenterology suggests domperidone for patients under age 60 as a conditional recommendation with very low-quality evidence.
  - **Prior to initiating domperidone, a careful review of contraindications is required.** Ensure the QT interval is normal, no family history of sudden cardiac death, and no medications that may prolong the QT interval. The American College of Gastroenterology recommends a baseline electrocardiogram and withholding of treatment with domperidone if the corrected QT is  $>470$  ms in male and 450 ms in female patients. Follow-up electrocardiogram on treatment with domperidone is also advised.
  - Details on domperidone and potential risks/contraindications can be found at: [myhealth.alberta.ca/Health/medications/Pages/conditions.aspx?hwid=fdb6090](http://myhealth.alberta.ca/Health/medications/Pages/conditions.aspx?hwid=fdb6090).
  - Domperidone can be used in escalating dosages, suggest starting at 5mg TID-AC, titrating up to 10 mg TID-AC as a 2-4 week trial.
- A trial of low-dose TCA therapy can also be considered. The Canadian Association of Gastroenterology suggests TCA therapy as a conditional recommendation with low quality evidence.
- Domperidone and/or TCA trials are appropriate within primary care, but not required prior to making a referral. If deemed clinically appropriate, these trials could occur while awaiting specialist consultation.

<sup>2</sup> Maximum Allowable Cost pricing paid by Alberta government sponsored drug programs. Cost and coverage information as reported in the Alberta College of Family Physicians publication "Price Comparison of Commonly Prescribed Pharmaceuticals in Alberta in 2019" found at [acfp.ca/wp-content/uploads/2019/02/ACFPPricingDoc2019.pdf](http://acfp.ca/wp-content/uploads/2019/02/ACFPPricingDoc2019.pdf).



- There is insufficient data to recommend the routine use of bismuth, antacids, simethicone, misoprostol, anti-cholinergics, anti-spasmatics, SSRIs, herbal therapies, probiotics, or psychological therapies in dyspepsia. However, these therapies may benefit some patients and, thus, a trial with assessment of response may be reasonable, if clinically appropriate, and could be undertaken while awaiting specialist consultation.

## BACKGROUND

### About this Pathway

- Digestive health primary care pathways were originally developed in 2015 as part of the Calgary Zone's Specialist LINK initiative. They were co-developed by the Department of Gastroenterology and the Calgary Zone's specialty integration group, which includes medical leadership and staff from Calgary and area Primary Care Networks, the Department of Family Medicine and Alberta Health Services.
- The pathways were intended to provide evidence-based guidance to support primary care providers in caring for patients with common digestive health conditions within the medical home.
- Based on the successful adoption of the primary care pathways within the Calgary Zone, and their impact on timely access to quality care, in 2017 the Digestive Health Strategic Clinical Network led an initiative to validate the applicability of the pathways for Alberta and to spread availability and foster adoption of the pathways across the province.

### Authors & Conflict of Interest Declaration

This pathway was reviewed and revised under the auspices of the Digestive Health Strategic Clinical Network in 2019, by a multi-disciplinary team led by family physicians and gastroenterologists. For more information, contact the DHSCN at 780-735-1448.

### Pathway Review Process

Primary care pathways undergo scheduled review every three years, or earlier if there is a clinically significant change in knowledge or practice. The next scheduled review is April 2022. However, we welcome feedback at any time. Please call 780-735-1448 to share your comments.

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### Disclaimer

This pathway represents evidence-based best practice but does not override the individual responsibility of health care professionals to make decisions appropriate to their patients using their own clinical judgment given their patients' specific clinical conditions, in consultation with patients/alternate decision makers. The pathway is not a substitute for clinical judgment or advice of a qualified health care professional. It is expected that all users will seek advice of other appropriately qualified and regulated health care providers with any issues transcending their specific knowledge, scope of regulated practice or professional competence.

## PROVIDER RESOURCES

### Advice Options

Non-urgent advice is available to support family physicians.

- Gastroenterology advice is available across the province via Alberta Netcare eReferral Advice Request (responses are received within five calendar days). Visit [albertanetcare.ca/documents/Getting-Started-Advice-Requests-FAQs.pdf](http://albertanetcare.ca/documents/Getting-Started-Advice-Requests-FAQs.pdf) for more information.



- Non-urgent telephone advice connects family physicians and specialists in real time via a tele-advice line. Family physicians can request non-urgent advice from a gastroenterologist:
  - In the Calgary Zone at [specialistlink.ca](http://specialistlink.ca) or by calling 403-910-2551. This service is available from 8:00 a.m. to 5:00 p.m., Monday to Friday (excluding statutory holidays). Calls are returned within one (1) hour.
  - In the Edmonton Zone by calling 1-844-633-2263 or visiting [pcnconnectmd.com](http://pcnconnectmd.com). This service is available from 8:00 a.m. to 6:00 p.m., Monday to Friday (excluding statutory holidays and Christmas break). Calls are returned within two (2) business days.

### Resources and References

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Resources for appropriate PPI prescribing. Alberta Health Services – Digestive Health Strategic Clinical Network website. <ul style="list-style-type: none"> <li>• PPI guideline <a href="http://albertahealthservices.ca/assets/about/scn/ahs-scn-dh-ppi-guideline.pdf">albertahealthservices.ca/assets/about/scn/ahs-scn-dh-ppi-guideline.pdf</a></li> <li>• PPI co-decision making tool <a href="http://albertahealthservices.ca/assets/about/scn/ahs-scn-dh-ppi-decision-tool.pdf">albertahealthservices.ca/assets/about/scn/ahs-scn-dh-ppi-decision-tool.pdf</a></li> <li>• PPI patient poster <a href="http://albertahealthservices.ca/assets/about/scn/ahs-scn-dh-ppi-patient-poster.pdf">albertahealthservices.ca/assets/about/scn/ahs-scn-dh-ppi-patient-poster.pdf</a></li> </ul>
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## PATIENT RESOURCES

### Information

Description	Website
General information on dyspepsia (MyHealth.Alberta.ca)	<a href="http://myhealth.alberta.ca/health/pages/conditions.aspx?Hwid=tm6322">myhealth.alberta.ca/health/pages/conditions.aspx?Hwid=tm6322</a>
General information on dyspepsia (Canadian Digestive Health Foundation)	<a href="http://cdhf.ca/digestive-disorders/dyspepsia/what-is-dyspepsia/">cdhf.ca/digestive-disorders/dyspepsia/what-is-dyspepsia/</a>
General information on dyspepsia (UpToDate® – <i>Beyond the Basics</i> Patient information)	<a href="http://uptodate.com/contents/upset-stomach-functional-dyspepsia-in-adults-beyond-thebasics?source=search_result&amp;search=dyspepsia+patient+info&amp;selectedTitle=2~150">uptodate.com/contents/upset-stomach-functional-dyspepsia-in-adults-beyond-thebasics?source=search_result&amp;search=dyspepsia+patient+info&amp;selectedTitle=2~150</a>
Information on domperidone (MyHealth.Alberta.ca)	<a href="http://myhealth.alberta.ca/Health/medications/Pages/conditions.aspx?hwid=fdb6090">myhealth.alberta.ca/Health/medications/Pages/conditions.aspx?hwid=fdb6090</a>

### Services available

Description	Website
Services for patients with chronic conditions (Alberta Healthy Living Program - AHS)	<a href="http://albertahealthservices.ca/info/page13984.aspx">albertahealthservices.ca/info/page13984.aspx</a>
Supports to quit smoking (Alberta Quits)	<a href="http://albertaquits.ca/">albertaquits.ca/</a>
Supports for working towards healthy lifestyle goals and weight management (Weight Management – AHS)	<a href="http://albertahealthservices.ca/info/Page15163.aspx">albertahealthservices.ca/info/Page15163.aspx</a>



# A Patient's Pathway for Managing Dyspepsia

## What is dyspepsia?

Dyspepsia is a word used to describe a group of upper belly symptoms that cause pain and discomfort (sometimes called indigestion).

Many people will have symptoms of dyspepsia at some point in their lifetime.

Dyspepsia is usually cared for by healthcare provider(s) in your family doctor's office.

## What is the dyspepsia patient pathway?

It is a map for you and your healthcare provider(s) to follow. It makes sure the care you are receiving for dyspepsia is safe and effective to manage your symptoms.

You and your healthcare provider(s) may modify the pathway to best suit your healthcare needs.

If symptoms cannot be managed over time, you and your healthcare provider(s) may decide a referral to a specialist would be helpful.

### 1. Check your symptoms

- Pain or discomfort in the upper part of the stomach, often associated with meals
- Feeling uncomfortably full after eating
- Nausea (feeling like throwing up)
- Loss of appetite
- Bloating

### 2. Make lifestyle changes to manage your symptoms (see over for details)

- Track and avoid foods that make your symptoms worse
- Eat smaller, more frequent meals
- Lose weight, if you need to
- Stop or limit use of tobacco, alcohol, or cannabis
- Avoid wearing tight clothing around your mid-section

### 3. Tests that may be done

- Blood tests
- Breath or stool tests for a bacterial infection in your stomach
- Other tests are rarely needed

**Be sure to tell your healthcare provider(s) if you have these symptoms:**

- Stool that is black in colour or has blood in it
- Trouble swallowing or pain while swallowing food
- Feeling that food gets stuck while swallowing
- Vomiting that doesn't stop
- Vomiting with blood in it
- Unexpected weight loss

If your symptoms don't improve, get worse, or keep interfering with your everyday activities, talk to your healthcare provider(s).

Once you find something that works for you, stick with it.

You may need to keep trying other options to find what works best to manage your symptoms.



### 4. Medicine that may be tried

- Many options can be used to lower how much stomach acid your body makes, help digest food, or decrease stomach pain.
- Talk with your healthcare provider(s) about what medicines may be right for you.



# What do I need to know about my symptoms and dyspepsia?

## Working through the dyspepsia patient pathway can take several months:

- Your healthcare provider(s) will ask you questions about your health and do a physical exam, including reviewing medicines you are taking.
- They may suggest certain tests to learn more about possible causes of your symptoms.
- They will talk to you about possible lifestyle habits that may be “triggers” for your symptoms and how you can make changes that could help you feel better.
- You may find it helpful to record information about your symptoms and possible triggers so you and your healthcare provider(s) can make a plan to manage your symptoms.
- Together, you may decide to try certain medicines to help in treating your symptoms.
- You may use medicines for a short amount of time (or possibly longer) depending on whether your symptoms improve.

## To manage your symptoms try to:

- Eat smaller, more frequent meals instead of 2 or 3 large meals.
- Wait 2 to 3 hours after you eat before you lie down.
- Change what you eat or drink. Fatty foods, spicy foods, foods with a lot of acid in them, coffee, mint, and chocolate can be causes of dyspepsia symptoms.
- Avoid wearing tight clothing around your midsection.
- Stop or reduce the use of alcohol, tobacco, or cannabis products.
- Lose weight, if you need to. Losing just 3 to 5 kg (7 to 11 lbs.) can help.

## Seeing a specialist is only recommended if:

- Symptoms continue or get worse after following treatment and management options in the dyspepsia pathway.
- Concerning test results or symptoms are identified by you and your healthcare provider(s).

## You can find more information in the great resources below:

Canadian Digestive Health Foundation  
[cdhf.ca](http://cdhf.ca)

My Health Alberta  
[myhealth.alberta.ca](http://myhealth.alberta.ca)

## Write any notes or question you may have here:

If you have any feedback about this patient pathway, contact us at  
780-735-1448

