

Cancer care has never operated in a vacuum: patients have always had to contend with external conditions, from family needs, to work obligations, to navigating local health systems.

2020 threw one more variable into the mix: a global pandemic. Now, in 2021, we've made much progress against COVID-19, with multiple vaccines available. Patients with cancer are generally able to access the care they need, compared to the dire situation one year ago.

However, the emergence of COVID-19 has raised important questions about how to manage your individual health and cancer treatment while maintaining public health precautions. New questions have arisen as we move into new territory of vaccines and re-entering public life.

- ▶ Should I get vaccinated? How do vaccines work? Are they safe?
- ▶ How can I care for myself and reconnect with others, while remaining safe?
- ▶ What are the risks of contracting COVID-19, as a person with cancer?
- ▶ What happens to my treatment if COVID gets worse in my area?

This Appendix seeks to address these questions, as well as serve as a general guide to your prostate cancer treatment during the pandemic.

Please remember that these are general principles. The best course of action for YOU will depend on your individual health status, and health systems and transmission rates in your area. Consult your doctor/care team to make informed decisions regarding your particular situation.

As public health guidelines evolve rapidly, we suggest you also check back frequently at pcf.org/COVID-19 for updated resources as well as subscribing to our [newsletter](#) for breaking updates.

WHAT COVID-19 RESEARCH IS LEARNING FROM PROSTATE CANCER

Research has shown that men are more likely to develop severe complications and to die from COVID-19. The reasons are complex, but one piece of the puzzle may be a protein called TMPRSS2, which is involved in coronavirus infection of cells, and is present at higher levels in men.

TMPRSS2 is also a key driver of aggressive forms of prostate cancer, and is regulated by testosterone. Putting these pieces together, a study in Italy showed that men with prostate cancer whose testosterone was lowered with ADT were less likely to be infected and less likely to die of COVID-19 vs men not on ADT.

Having studied TMPRSS2 for years, as the pandemic unfolded, PCF researchers began applying their collective knowledge about TMPRSS2 and collaborating with infectious disease experts. One strategy to combat the virus was to give a single dose of ADT to men—without prostate cancer—who are infected with COVID-19. Temporarily lowering testosterone levels may decrease the amount of virus entering lung cells. In 2020, PCF ultimately helped to launch clinical trials of 2 different medicines to combat COVID-19.

COVID-19 VACCINE FAQs

The good news is that as of this writing, in the U.S., there are 3 vaccines with Emergency Use Authorization from the FDA. This is a rapidly changing situation: as more people are vaccinated, we will have more and better information about safety and efficacy of each vaccine. As clinical trials continue, other types of vaccines may become available. Understandably, people have questions about this important development in the fight against COVID-19. We address several of these Frequently Asked Questions below.

Is getting vaccinated safe?

Getting vaccinated is perhaps the most important thing you can do for your own safety and the safety of others. All of the vaccines that are currently being administered in the U.S. have received Emergency Use Authorization from the FDA, and have shown effectiveness through rigorous rounds of clinical testing within large and diverse populations. This means that the FDA has determined that the known and potential benefits outweigh the known and potential risks of the vaccine, and clinical trials show that 1) they are successful at protecting against COVID-19 infection and (2) except in extremely rare cases, cause no serious adverse side effects to the general public. It is important to keep in mind that as more and more people receive vaccines, additional very rare side effects may be seen. The occurrence of severe blood clots in less than 1 out of every 1 million people who received the Johnson & Johnson vaccine is a recent example. The FDA, CDC, and local public health departments will carefully consider any new information in making recommendations.

Can the vaccine give me COVID-19?

No. You can only be infected with any virus if you are exposed to a live virus, and none of the vaccines available in the U.S. contain the live virus.

How does the vaccine work?

The Pfizer and Moderna vaccines are mRNA-vaccines. There are many types of mRNA, or messenger RNA, in your cells already. They provide instructions for your body to make proteins. These proteins then go on to have various functions in your cells.

The mRNA injected as part of the vaccine gives your body instructions on how to make a **spike protein** that looks like the one which is present on the coronavirus. This spike protein is then presented on a type of immune cell and acts as a “red flag” to your immune system. Another type of immune cell then learns to recognize the spike protein as foreign, and makes antibodies that are specifically tailored to fight anything with a spike protein. These antibodies stay in your body. In the future, if you’re ever exposed to a live COVID-19 virus, the antibodies will recognize the spike protein and more quickly mount a defense against it, lowering your chance of contracting the infection.

The Johnson & Johnson vaccine, in contrast, is a carrier vaccine. Instead of using mRNA, it uses a disabled, harmless adenovirus to introduce the spike protein to immune cells, and to stimulate the process of antibody production to protect you if you are ever exposed to COVID-19. (Adenoviruses are very common; some cause a mild cold, but the one used in the vaccine won’t make you sick because it can’t multiply in your body.)

mRNA sounds like DNA. Will the vaccine change my DNA?

No. While mRNA and DNA are made up of similar molecules, mRNA deals exclusively in building proteins. DNA is something you inherit from both your parents, and is very tightly wound in your cells, protecting it from alteration.

Moreover, mRNA is an unstable molecule. After it is used to build proteins, it naturally breaks down, so it doesn't remain in your body.

Which vaccine should I get?

There are three vaccines currently authorized for use in the U.S. that have been shown to be effective against infection with COVID-19. Depending on your region and supply, you may have access to a particular vaccine, or perhaps all three. Here are a few key differences:

	Pfizer	Moderna	Johnson & Johnson
Vaccine Type	mRNA	mRNA	carrier
Age Range	16+	18+	18+ (currently testing on children)
Dosage	2 shots, 21 days apart	2 shots, 28 days apart	1 shot

You've likely seen differing statistics in terms of effectiveness, which might make you consider "holding out" to receive one vaccine instead of another that's readily available. Remember that each vaccine was tested at very different stages in the pandemic, with different transmission rates and variants, so comparing statistics head-to-head is like comparing apples to oranges.

Also remember that all 3 vaccines are **very effective** at preventing hospitalizations and deaths from COVID-19, and each one has **far surpassed** the FDA threshold of efficacy.

Get whichever vaccine you can, as soon as you are able to. The more people that are vaccinated means the closer we are to herd immunity, low transmission rates, and a return to normalcy.

What side effects should I expect from the vaccine?

Side effects are a reflection of your immune system ramping up in response to the vaccine. These can commonly include fever, chills, headache, fatigue, swelling at the injection site, and muscle soreness. These symptoms should resolve on their own within a couple of days.

Very rarely, as in 0.0000006% of cases, there is an anaphylactic reaction which can be treated with epinephrine. To protect against this, vaccination sites monitor all recipients for 15 minutes after their vaccination, and for 30 minutes if they have a history of severe allergies. As noted above, other very rare side effects may arise as millions of people get vaccinated, and these will be carefully evaluated by scientists and public health experts.

I'm relatively healthy, and will likely survive a COVID-19 infection. Why should I get vaccinated?

Getting vaccinated has benefits both for you and your community.

Contracting the virus isn't necessarily harmless. In December 2020, COVID-19 was the 3rd leading cause of death for people between the ages of 45 and 84. For middle-aged people, the risk of dying from COVID-19 is about 100 times the risk of dying in a car crash, with a 1 in 100 chance of an infection becoming fatal for people in their 60s. 1% may not seem like a high probability, but when you apply it to a population, that has amounted to nearly

100,000 deaths in the past year. There simply is no guarantee that you won't have complications from COVID-19; the vaccine provides a safe and effective way to drastically lower your chances of becoming infected.

We also can't ignore the potential long-term repercussions of the virus. There is increasing evidence that even after "recovering" from COVID-19, people still experience persistent respiratory symptoms and damage, fatigue and shortness of breath, inflammation of the heart, recurring headaches and vertigo, and loss of taste/smell. Again, vaccination is a simple path to reducing your risk of these outcomes.

These chronic conditions are dangerous and difficult to manage on the individual level, but they also present an additional burden to healthcare spending. The Kaiser Family Foundation has already predicted costs of \$13.9-\$41.8 billion, from simply caring for uninsured patients with the coronavirus. If we also consider long-term COVID-related health conditions, including increased risk of comorbidities like heart disease, that number has the potential to skyrocket. Those costs trickle down to the individual, in the form of increased social service-related taxes and spiking insurance premiums. Large-scale vaccinations, on the other hand, help us lower healthcare spending in the short-term as well as in the future.

Finally, getting vaccinated is one of the best ways to protect the vulnerable people in your community. There are many people who **can't** get vaccinated, such as those who are immunocompromised and young children. Each person who gets vaccinated brings us one step closer to herd immunity, where the number of people who are vaccinated is so high that it protects those who can't be.

What's an antibody drug? Should I try to get that instead of a vaccine?

You might have heard of clinical trials for antibody "drug cocktails" that have shown promise in preventing severe disease from COVID-19. Antibodies recognize proteins on the surface of cells. They are specialized to particular foreign substances: a COVID-19 antibody allows your immune cells to find and lock onto a COVID-19 protein (such as the spike protein), and activate an immune response to fight the infection. The drug combinations that are being tested mimic the antibodies your body generates naturally when fighting COVID-19.

While they have shown early success in some trials, antibody drugs are not a substitute for vaccination. These drugs are still time-consuming and hard to administer, require a lot of healthcare resources, and haven't been tested on as large a scale as the vaccines. In comparison, vaccine supply continues to increase, and vaccines are quick and easy to administer to large populations. Rather than waiting for a potential outcome of a drug trial, you can protect yourself now by getting vaccinated.

Is it safe to get vaccinated if I have prostate cancer?

As with any course of action for your health as a person with cancer, consult your care team to get the best guidance for your specific case. As a general point of information, the vaccine was tested on tens of thousands of people with a variety of health conditions, and is generally considered safe and necessary for people with cancer.

Does having prostate cancer qualify me to get vaccinated?

At this point, COVID-19 vaccines are available in the U.S. to everyone age 16 and older.

How do I get a vaccine?

Many state and county websites have direct links to sign up for a vaccine appointment. You can also check vaccinefinder.org to find local vaccination sites.

How long will the vaccine protect me? Will I ever have to get a future dose to protect against other variants?

We're not sure how long antibodies remain in the body after vaccination. For now, your first priority should be getting vaccinated as quickly and safely as possible.

At the moment, the Pfizer vaccine has been shown to be effective against the COVID-19 variant found in the UK (B.1.1.7). Early research suggests that the Moderna and Johnson & Johnson vaccines may also protect against B.1.1.7, as well as the variant found in South Africa (B.1.351). As future research emerges, medical professionals will be able to recommend further courses of action; for now, focusing on getting fully vaccinated should be the priority. Similar to other vaccines (such as MMR or tetanus), it is possible that a booster vaccine may be needed in the future. Research is ongoing to determine if this may be needed.

Can I live life as normal after getting vaccinated?

Scientists believe that vaccinations help to prevent COVID-19 transmission as well as infection, but there is still ongoing research to confirm this. Current CDC recommendations include continuing to wear masks in indoor public spaces and around people who haven't been vaccinated. Fully-vaccinated people can gather indoors without masks with other fully-vaccinated people.

MENTAL HEALTH AND WELL-BEING: THROUGH COVID-19 AND BEYOND

Prioritizing your mental and emotional well-being is always important, and even more so during a pandemic. If you've been dealing with prostate cancer management on top of it all, you might have been feeling overwhelmed, uncertain, lonely, stressed - the list goes on.

As more and more people are vaccinated and life seems to be slowly returning to "normal", you might have new concerns about what this transition might mean for you. Maybe you've paused treatment for a while, and are wondering what the next steps might be for your healthcare. Maybe you've spent most of the year working from home, or isolating with a few family members, and are nervous about working in-person and being around people again.

The first and most important step is to recognize those feelings, particularly if they're ongoing and interfere with daily life. Know that these feelings are completely normal, and you're not the only one who feels that way. Everyone has been affected by the pandemic in some way, and give yourself some credit for continuing to navigate a confusing and challenging year.

The next step is to find ways to address your stressors, both individually and with the support of others. Here are a few suggestions:

- 1. Take care of your physical health:** You might not feel in the mood to eat healthy and exercise, but taking small steps to maintain your physical health might actually help you feel a little more in control amidst all the uncertainty. Research has actually shown that even moderate daily exercise helps to improve mood and has potential antidepressant effects. Incorporating 30 minutes of exercise a day is a great place to start, as is including diverse food groups in your diet, such as brightly-colored vegetables, whole grains, lean proteins, and fruits.

- 2. Carve out time for rest:** Many of us are on our laptops 24/7, and with working from home, it can feel like you're always "available." Remember to set boundaries for when you're "online", and don't feel bad about not responding to messages immediately. This also means powering down the closer it gets to bedtime, and giving yourself as much sleep your body needs.
- 3. Engage in relaxing activities:** Find ways to decompress that make sense for YOU. If meditation calms you down, great! If counting your breaths makes you feel restless, turn to something you DO enjoy, like cooking, taking walks, or playing with a pet.
- 4. Reach out:** You are not alone. Consider sharing your feelings and worries with trusted friends and family, a therapist, and/or your care team. You might find comfort in knowing that other loved ones feel the same way you do. Talking to professionals can also help expand your knowledge and make informed decisions.

For the basics on self-care and beyond, see also PCF's guide to nutrition and wellness, *The Science of Living Well, Beyond Cancer* at pcf.org/guides.

WHAT TO CONSIDER IF YOUR PROSTATE CANCER TREATMENT IS DELAYED

For months in 2020, cancer care was changed or delayed for multiple reasons, including overtaxed healthcare systems and risk of COVID-19 infection when visiting a doctor's office or hospital. Fortunately, at this writing, the crisis has passed in the U.S., and most people with cancer and other illnesses are able to get the care they need. As a general rule, NCCN and other prominent cancer care organizations currently recommend continuing with necessary cancer treatment, with benefits largely outweighing risk of potential COVID-19 infections.

However, keep in mind that local conditions may change as the pandemic continues; even now, some states and regions are seeing surges in infections. The following section is an overview of potential changes to prostate cancer care, in the event that your local health system is affected by COVID-19.

PROSTATE CANCER SCREENING

Routine screening for prostate cancer includes a PSA blood test and, if needed, a digital rectal exam (DRE). At the start of the pandemic, COVID-19 infection rates raised questions about whether it was safe to continue routine cancer screenings.

The National Comprehensive Cancer Network (NCCN), along with leading cancer organizations, has released a public statement endorsing the importance of cancer screening during the pandemic, particularly if you have one or more risk factors for cancer.

If your screening was postponed or canceled, reach out to your doctor to inquire about rescheduling. Many primary care offices have reconfigured their appointments to comply with social distancing measures and make screening as safe as possible. Your doctor can also give you individualized guidance on the risks and benefits of going in for a screening, given infection rates in your region and your personal risk of developing cancer.

PROSTATE CANCER TREATMENT

NCCN had previously released guidelines on prostate cancer treatment that consider the risk of COVID-19 infection to patients as well as the demands on healthcare systems.

In the following sections, we break down these recommendations for Local/Locally Advanced and Advanced/Metastatic prostate cancer.

As always, the best course of action depends on the severity of your cancer, the risks/benefits of your treatment plan, and COVID-19 rates in your area. Consult your care team to determine the best plan for your specific case.

Localized/Locally Advanced Prostate Cancer

If you have been diagnosed with localized or locally advanced prostate cancer (cancer that has not spread outside the prostate or the region around it), your risk of infection with COVID-19 is the same as someone without a cancer diagnosis.

For patients in low, very low, or favorable intermediate-risk groups, studies have shown minimal harm caused by 3-6 month delays in treatment. If COVID-19 infection rates are high in your area, speak to your doctor about the risk and benefits of delaying treatment for now.

Prostate cancer can be slow-growing, but it is possible for prostate cancer cells to become more aggressive, start to grow, and spread more quickly. If you and your doctor decide to delay treatment, talk to them about any warning signs to look out for. This might include pain in your lower back or legs, pain or pressure in the rectum, difficulty urinating, blood in the urine, or new difficulty getting an erection.

Make a plan for how to contact your doctor if you notice new or concerning symptoms. If possible, make it a proactive plan: request to have regularly scheduled telemedicine check-in appointments with your doctor or nurse about any symptoms you may be experiencing.

Depending on your case and infection risk in your area, you and your care team might decide to proceed with treatment.

Treatment options for localized prostate cancer include:

- ▶ Active surveillance (scheduled monitoring, with treatment only if the cancer starts to progress)
- ▶ Surgery
- ▶ Radiation therapy
- ▶ Androgen deprivation therapy (ADT, also known as hormone therapy)
- ▶ A combination of these methods (surgery, radiation, ADT)

The following sections detail these treatment options and how your care team might adjust them to fit the COVID-19 landscape in your area.

Active Surveillance

Under normal circumstances, active surveillance is appropriate for many very low-, low-, and certain favorable-intermediate risk patients who qualify. This may be an even more attractive option during the pandemic, as it allows you to minimize in-person visits to your doctor.

Active surveillance involves using PSA checks—usually done once or twice per year—to monitor your cancer. Pandemic-safe active surveillance might include having your blood drawn at a local lab and reviewing the results with your doctor over the phone or on a virtual visit, instead of in-person. You might also have MRIs or biopsies scheduled as part of your active surveillance: check with your doctor to determine the best way to keep or reschedule these appointments.

Surgery

Throughout the pandemic, hospitals have worked to balance caring for COVID-19 patients along with providing other essential care such as cancer treatment surgeries. In some cases, non-essential surgeries were postponed.

Fortunately, in prostate cancer, this is unlikely to cause significant harm. Research has shown that delaying surgery even in high-risk patients is unlikely to affect long-term outcomes, and can significantly reduce risk of contracting COVID-19.

At this point, many delayed surgeries are being resumed, especially as infection rates are falling in many areas and safety protocols are more established. Contact your care team to determine whether it makes sense to reschedule any surgery that may have been postponed. Note that before any major procedure, patients will be required to test negative for COVID-19.

Follow-up visits after surgery may occur through telehealth or a home nurse visit to avoid bringing you into the clinic. If you are recovering from recent surgery, be sure to check in with your doctor about any possible changes to your follow-up plan. And if you are having new or severe pain, bleeding, changes in urination, fever, or other warning signs, call your doctor's emergency number.

Radiation Therapy

Radiation therapy is a very common treatment for localized prostate cancer, and local surges of COVID may affect this care option as well. In general, most radiotherapy facilities have been less impacted, as radiation does not require intubation, hospitalization, or substantial PPE use.

A team of experts, led by PCF-funded investigator Dr. Dan Spratt, has developed a framework for doctors to consider how and when to modify radiation treatments during COVID-19. The goal is to help doctors safely care for their patients—balancing concerns of prostate cancer with COVID-19 infection risk—while conserving healthcare resources.

This framework is called RADS (which, coincidentally, is also a pun: it is the term used to describe a “dose” of radiation therapy). It stands for:

R = Remote Visits: Use phone or video instead of in-person visits.

A = Avoid Radiation: Do not treat with radiation therapy where there may be little or no benefit based on clinical trials.

D = Defer Radiation: Defer the start of treatment to maintain safety.

S = Shorten Radiation: If radiation is used, use the shortest safe form possible.

How will this affect you if you were considering radiation therapy? Men with very low- and low-risk prostate cancer (go to pcf.org/risk-groups for details) may be advised to delay until the risk of COVID-19 is low in your area. If delay is not possible (e.g., with high-risk, high-Gleason grade tumors), your provider will consider how to give safe and effective radiation therapy with the fewest possible number of visits.

Fortunately, hormone therapy is often combined with radiation as part of the standard of care, and hormone therapy can safely be used to delay the start of radiation by up to 6 months without any jeopardy in long-term outcomes.

If you have already had a prostatectomy and are planning radiation afterwards, you and your provider may consider following your PSA (potentially, via local lab draws and telehealth visits) and starting radiation only if your PSA starts to rise.

In general, the more treatments you have, the more exposure you will have to the healthcare environment, which may increase your risk of contracting COVID-19. Stereotactic body radiation therapy (SBRT) is the shortest-course treatment, and often can be done in as few as 5 treatments.

Talk to your doctor about when and how to proceed with radiation therapy to ensure that you have the best cancer outcome possible, while minimizing your risk of COVID-19.

Hormone Therapy (ADT)

Hormone therapy does not put men at additional risk of infection with COVID-19. In fact, [clinical trials](#) are testing whether a very short course of ADT may actually be beneficial in men (without prostate cancer!) who are already infected with COVID-19. However, there is no data to recommend starting ADT in men with prostate cancer as a way to prevent COVID-19.

If you have unfavorable intermediate, high, or very-high risk prostate cancer and are planning to have radiation therapy as your primary treatment, you and your doctor may choose to begin ADT in order to delay radiation for 4-6 months. A major advantage of ADT is that it can be given as a long-acting injection, minimizing the number of clinic visits.

Advanced or Metastatic Prostate Cancer

Men with advanced disease may be especially worried about delays or changes in their treatment plan. In general, cancer centers are continuing to treat patients with advanced cancer during the pandemic, and patients who need chemotherapy can still come in for infusions. In order to minimize COVID-19 infection risk, clinics are screening patients for COVID-19 symptoms upon arrival, ensuring that patients and staff wear masks and other PPE, and may be limiting visitors.

Immunosuppression

It is important to know that, in general, chemotherapy weakens the immune system—it lowers your white blood cell count and reduces your body's ability to fight off infections. For some men, the risk of prostate cancer progression outweighs any increased risk of COVID-19 infection while on chemotherapy. Another option may be to increase the time between infusions to allow your immune system to more fully recover.

Your provider may also consider treatments that do not weaken your immune system in the same way as chemotherapy. For example, androgen directed therapies such as enzalutamide, apalutamide, darolutamide, or abiraterone may be appropriate for treating advanced or metastatic disease, and do not affect your infection-fighting cells. However, these alternate treatment pathways require other considerations. For example, abiraterone is given with prednisone, which can cause immunosuppression. Abiraterone also requires more frequent lab tests when starting therapy, creating more COVID-19 exposure risk. Your doctor may consider these factors when choosing among androgen directed therapies.

If you are scheduled to begin chemotherapy, make a plan with your doctor for how you will be protected during your infusion—starting from the time you get out of your car to when you return home.

You should also consult your care team about the risks, benefits, and timing of getting a COVID-19 vaccine. It is still recommended to get a COVID-19 vaccine, but your doctor may recommend a specific time to be vaccinated around your treatment.

Symptom monitoring on chemotherapy

If you are on docetaxel or other chemotherapies, your doctor will have given you a list of warning signs of infection, such as fever or inability to keep food and drink down. Especially during the pandemic, be vigilant about these symptoms and call right away if you notice them. More research is needed to show how chemotherapy directly affects prostate cancer patients' risk of COVID-19 infection.

Radiation therapy for advanced/metastatic prostate cancer

If you have been newly diagnosed with low-volume metastatic or oligometastatic prostate cancer, radiation therapy may be part of your treatment plan. As mentioned above, if COVID-19 cases are surging locally, your doctor may recommend that ADT be used to safely delay starting radiation for 3-6 months. However, longer delays of radiation therapy for men with advanced disease, and excessive use of ADT are not recommended.

Clinical trials

Under normal circumstances, clinical trials are an important option for men with advanced disease. However, be aware that clinical trials may be on hold or enrolling fewer patients during the pandemic. Always ask your doctor if clinical trials are an option, as these may be some of the most cutting-edge treatments available.

Post-Treatment: Prostate Cancer Survivors

Men who have completed their prostate cancer treatment are not thought to be at higher risk of infection with COVID-19, but more information is needed to make conclusive recommendations. Experts recommend that cancer survivors get vaccinated against COVID-19; talk to your doctor about your specific case.

If you had surgery or radiation therapy several months ago, and you are feeling well, you're likely at the same risk as any man of your same age and with the same other health conditions who's never been diagnosed with prostate cancer. But if you are over age 60 and being treated for conditions such as diabetes, coronary artery disease, high blood pressure, or lung disease, take extra precautions to maintain your health. It's especially important to follow any local public health recommendations to wear a face covering when going out, avoid crowded indoor areas with poor ventilation, and continue to wash your hands and disinfect surfaces in your home. Check out [pcf.org/COVID-19](https://www.pcf.org/COVID-19) for updates.

Your doctor may postpone any post-treatment monitoring until it is deemed safe for you to come to the clinic, or you and your doctor may choose to do this via telehealth.

WHAT YOU CAN DO: KEEP YOURSELF AND YOUR LOVED ONES HEALTHY

If your treatment is delayed due to local pandemic conditions, you may feel frustrated. But there is a LOT you can—and must—do for yourself now to keep yourself and your family well and to prepare for any treatment that you may have in the future. **It is important that you keep yourself and your caregivers well.** COVID-19 is a serious concern for everyone, regardless of prostate cancer, and if you or someone you live with becomes infected, this may put you at risk for severe illness if you have not been vaccinated. Rather than stress about delays or changes in treatment, use this time to ensure that you are in the best shape possible for when you do begin treatment. Being sick with COVID-19 could set you back and even endanger your life.

1. The basics: Wash your hands frequently with soap and especially after being outside. Keep your fingers away from your face. Clean surfaces in your home. Check the CDC website for more details.
2. Follow local public health guidelines. While many communities are opening up social gatherings, even people who have been vaccinated are encouraged to wear masks in crowded spaces. It is important that you adhere to local guidelines. This will change over time, so check reliable local sources of information, such as your public health department website. You may be able to sign up for alerts on your smartphone from your local government.
3. Maintain your wellness to be in the best shape possible for treatment. This includes physical (diet, exercise) and mental (engaged mind, virtual social connections). PCF.org has a [blog](#) with suggestions, and [this article](#) notes how losing weight before surgery, if that applies to you, may improve surgical outcomes.
4. Plan for your every move to and from treatment. You may have already arranged who will help you after surgery or who will drive you to your appointments. Wash your hands frequently before, during, and after your clinic visit. Check back with those family and friends, as they may have been impacted by COVID-19 in terms of health, finances, or living situation.
5. Be socially present and mindful of gatherings. While you may not be able to see all of your friends and family in person, it's a critical time to stay connected. Research suggests that people's amount of social connection is related to health outcomes, including cancer. The most recent CDC guidelines note that fully-vaccinated people may gather in small groups without masks, but not everyone is fully vaccinated. Plan your gatherings carefully and use videoconferencing to stay in touch with people you can't visit.
6. Get vaccinated as soon as you are able. Talk to your doctor about any specific health concerns, and see the FAQs in this Appendix for more information.