

**Q: What is a good resource for parenting my teenager with CF?**

Parenting Teens with Love and Logic by Foster Cline, M.D. and Jim Fay

**Q: When can my child come to the CF clinic without a parent?**

At 18 years old, your child can come to the clinic without a parent or guardian.

**Q: MyChart, who needs to sign up? What are the uses and limitations of MyChart?**

MyChart is a service that allows you to securely access your health records on the computer after you have been to the clinic or hospital. You can use it to do things like view test results, make appointments, ask for renewals for prescriptions, message your doctor's office, and view medical records. Once your physician receives test results, they can add them to your MyChart account for you to view. Having access to your medical records provides you with a history of the care that you've received. You can use this as a reference when talking to insurance companies or other health professionals. The ability to securely communicate with your doctor's office via email is very helpful for some patients who need questions answered outside of their appointments. These emails should be about non-emergency information and will be answered within a time frame of around 3 business days. Parents can have access to their child's MyChart if they sign up via Proxy access. They can view the health information and test results of their child and ask questions on their behalf.

If you wish to sign up for MyChart, you will get a code from your doctor's office to use in the login process. If you have questions, contact us via email at [MyChart@rchsd.org](mailto:MyChart@rchsd.org), or call the Rady Children's Service Desk at 877-902-4278.

When your child turns 12, your access to the medical record becomes limited and to continue to receive results and appointment times, your child will need to sign up for Teen MyChart. This is a separate account from the parent one. Your child has rights to privacy from a medico-legal standpoint and is a universal change throughout the electronic medical record. The only exemptions are for significantly decreased mental capacity.

**Q: How can I help my child deal with the stress of school, homework, and balancing time with CF?**

Anyone can become overwhelmed when things like homework, studying for tests, extracurricular and social activities start to pile up. Adding CF treatments and medications to the list of things to take care of everyday can make it hard to get everything done. If you're having trouble balancing all of the tasks associated with CF care, organizing your schedule can be a helpful first step.

If you use a planner or a cell phone calendar, add your CF tasks to it. Seeing them in your schedule can help prevent you from booking other events in their place. Use the reminder feature of your phone or computer calendars for extra assistance. Before the beginning of a new week, look over your calendar and see if there is anything coming up that interferes with a CF treatment. If you know about a conflict in advance, you can plan around it to help keep your stress levels low.

Another helpful tactic is to find ways to make non-essential tasks as efficient as possible. For instance, if you take a long time to get ready in the morning, try shortening this time by picking out clothes and packing bags the night before. Some people who struggle with the nutritional aspect of CF have found that cooking large portions on Sunday to last the week helps make it easier to get all of the calories they need.

Even with the best organizing skills, you will inevitably still miss the occasional treatment. This happens to everyone, so it's important to be compassionate with yourself. If you find that you are consistently struggling to complete your CF care routine, talk to your care team. They can help you explore other options that might work better for you.

#### Q: What do I do if I find out my child is not doing treatments?

It is very rare that a patient adheres perfectly to their treatment plan. Sometimes, it can be helpful in getting a person to participate more regularly if they know that even the best caretakers of health miss some treatments. From there, the best approach is to show your child that you are truly interested in exploring their reasons for ignoring treatments. Some reasons they have will be solvable, and others will require compromise and negotiation.

There are many reasons that an adolescent might miss treatments. It can be as simple as not liking the taste of a medicine, not wanting to take the medicine in front of peers, having a schedule that has become too busy, or simply forgetting. Reasons can also be more complex. If they are intentionally skipping treatments, it might be because they are in denial of their CF, they are rebelling against their treatments or they don't think their treatments are helping. As you can imagine, it's important to understand the real reason your teen is not getting their treatments done.

It's easy for parents to feel frustrated when they can't get their child to understand the importance of CF treatments. Parents can comprehend the future and how much more difficult it will be for their child if they don't take care of their CF now, but the children and teenagers are unlikely to acknowledge these points or feel they are important. This isn't the child's fault. Varying from adolescent to adolescent, abstract thinking might not be fully developed yet, which means that sometimes adolescents aren't able to think of things outside of the here and now. Thinking about it from their perspective, it starts to make more sense that they don't place value on their CF treatments when they take away from the present.

For reasons that require more negotiation, focus on the benefits that their treatments provide them – like feeling well enough to be out of the hospital. Teen brains respond more to positive rewards than negative consequences. Involve your CF care team in the discussion as well. They can help you and your child come up with plans to review the medicines and treatments that your child is feeling dissatisfied with. They can also help by providing new insights into the problem and help relieve some tension as a third party in the discussions that happen between you and your child.

#### Q: How will my child keep up with schoolwork if they're admitted to the hospital?

If your child has to be hospitalized due to CF, keeping up with schoolwork can be a challenge. When you learn that your child will need to go to the hospital, ask your doctor to estimate how long the stay will be, and share this information with your child's teachers. Most hospital admissions are approximately 14 days but can vary based on your child's medical needs. Encouraging your child to be involved in the communication with their teachers can help them take ownership of the work they will need to be doing while in the hospital. Your child might require a reduced workload or extended due dates for their assignments and agreeing on a plan for this with their teachers is a vital first step.

While your child is in the hospital, keep teachers updated about how the work is coming along. Don't be afraid to let them know if progress on schoolwork has been slower than was originally planned. Teachers are more likely to be understanding if they know ahead of time that a deadline is not going to be met. Remember, when your child is admitted to the hospital, his/her most important task is to get well.

Once you've agreed on a schedule for deadlines and due dates, write them on a calendar that your child can access easily. Start working on study skills with your child by helping them plan ahead for big projects and tests. Teach them how to allot a realistic amount of time beforehand to prepare for assignments. Check with your child's school district for information about any resources that may be available to support your child during hospital admissions.

For more information about accommodations during hospital admissions: <https://www.cff.org/CF-Community-Blog/Posts/2015/Managing-School-From-a-Hospital-Room/>

#### Q: Is it healthy for people with CF to become vegetarian?

There are many reasons that a person might want to adhere to a vegetarian diet. People with CF have special dietary needs that include high-fat, high-protein, and high calories. It can be challenging to meet these requirements if your diet contains mostly vegetables and carbohydrates, but it is not impossible. If you decide to pursue a vegetarian diet, you will have to pay special attention to what you eat each day to make sure you are able to stay healthy.

When planning a vegetarian diet with CF, start by making sure that you are eating 3 planned meals and 3 planned snacks each day. High school can be a busy time with lots of extracurricular activities. If you are struggling to find time to prepare meals during the day, try preparing them ahead of time. You could get your meals for the day ready the night before and put them in storage containers that are easily transportable. If this is still too much time for you, some people have found that preparing all of their meals for the week on one day, Sunday for example, can be a great time-saver.

There are lots of ways to get enough fat and protein in a vegetarian diet. You can get fats from dairy products including butter, cheese, and full-fat milk and yogurt products. If you prefer to avoid eating any animal-based product, there are plant-based fat sources like olive or grape seed oils, nuts and nut butters, chia seeds, flax seeds, avocado, canola oil and coconut oil. A good way to get fats into your vegetarian dishes is to cook your vegetables in one of the plant-based oils listed above. Add peanut butter to milkshakes, smoothies or smoothie bowls; add nuts, seeds, and avocado to things like salads, baked goods and sandwiches.

Depending on your dietary preferences, some animal proteins like eggs, fish, and dairy products will still make for good protein sources for you. Plant-based proteins like tofu, tempeh, edamame, lentils, chickpeas, nuts, spirulina, quinoa, chia and hemp seeds, seitan, beans, and nutritional yeast can be used to fulfill your protein-rich diet. Combine these with some of the fats listed above or add them on top of other meals to fulfill your protein requirements. You can also use protein powders in smoothies or drinks to boost your intake.

Your salt intake could become lower when you switch to eating a vegetable-based diet. Make a point of adding sources of sodium to your meals with things like table salt or soy sauce. This is especially important when you are being active because you can lose an increased amount of salt in your sweat.

We know that a healthy weight contributes to better lung function in people with CF. If you decide to make a dietary change, let your CF care team know and they can help monitor to make sure remain at a healthy weight. Seek out the dietician on your team as a great resource for helping you get the calories you need while still staying within your dietary limitations.

#### Q: What are 504 Plans and Individualized Education Plans (IEPs)?

Public schools that receive federal funding are required to provide education and services to children with disabilities under federal laws such as the Individuals with Disabilities Education Act (IDEA) and the Rehabilitation Act of 1973. Individualized Education Plans (IEP) exist within the Individuals with Disabilities Education Act (IDEA), and the Rehabilitation Act of 1973 contains Section 504 Plans. Both IEP's and 504 Plans can be very useful in helping your child with CF get the assistance that they need to be successful at school.

IEP's and 504 Plans are slightly different from one another, but some schools and school districts might treat them interchangeably. You will want to check with your school to see which one they will accept for your child with CF. IEPs are used for adjusting a child's required work load to fit more reasonably with their capabilities given a health condition that has affected their learning abilities. Even though CF does not affect your child's cognitive abilities, their ability to learn can be affected if they have to miss a lot of school due to hospitalizations or sick days. The workload adjustments that an IEP covers can include less work assigned, extended deadlines, note-taking assistance, extra time for tests, etc. IEPs also can be used for advanced planning of hospitalizations to determine how children will get tutored during their absence from school.

Some schools require 504 Plans instead of IEPs because CF does not affect a child's cognitive abilities. 504 Plans differ from IEPs in that they address the physical aspects of your child navigating school each day. With CF, your child might need to do CF treatments or take medicines while at school. A little extra time getting to classes might be required, or they might need to use the bathroom more often than other children. To reach calorie goals, they might need to have snacks and water available to them throughout the day, or to have different high calorie choices at the school cafeteria. There may be days where they need to remain inside when the air quality is poor. All of these things, if addressed ahead of time in a 504 Plan, can help you advocate for the needs of your child.

To initiate your child's IEP or 504 Plan, you will need to make a request to the school in writing. Your CF social work team care team can help you identify some things that would be helpful to your child to request. A meeting will be scheduled with the school team and you and your child. Together with the school team, a plan will be developed to assure your child has accommodations in place so he/she can succeed at school. Your child's IEP or 504 Plan will need to be renewed and revised each year. More information about IEP's and 504 Plans can be found here: <https://www.cff.org/Life-With-CF/Caring-for-a-Child-With-CF/Working-With-Your-Childs-School/Individualized-Education-504-Plans/>

Private schools that do not receive federal funding are not obligated to follow the IDEA or the Rehabilitation Act of 1973. If you are interested in a private school, you will want to see that they are willing and able to do to meet your child's needs before agreeing to attend.

### Q: What about sports?

Sports are a big part of the lives of many high school students that have CF and exercise is a very good thing! Being physically active has the special benefit of strengthening muscles in the chest that are used to breath. It can also lead to coughing which helps people with CF clear their airways of mucus. Additionally, being on a team sport can have a huge role in the social life of your teen.

Any physical activity that your child is interested in should be encouraged, whether that's their physical education class, a sport or another extracurricular activity. It's important to understand that your child with CF might get worn out more quickly than other children. This doesn't apply to all kids with CF though. Ask the CF team if this is something you should be concerned about. If this does happen, kids should be encouraged to take a break and rejoin the activity when they have energy. It's important to communicate this with teachers and coaches to ensure that they know your child's possible limitations. It's also important to remember that people with CF lose more salt in their sweat than others. To counteract this salt loss, salty foods may need to be eaten before or after physical activity. All of these accommodations can be requested in a 504 Plan at school. The CF clinic social workers can help with this.

If you are unsure about the physical demands of participating in a sport, talk to your CF care team. They can help give you some suggestions of how to keep your teenager safe while they're exploring the new-found interest.

### Q: Help with college planning?

When making decisions about the future, or life after high school, CF needs to fall into the list of considerations. CF maintenance is just as important in these next phases of life as it was at home. Sometimes young adults with CF are not as diligent with their daily treatment plan when they no longer have a parent or guardian around to remind them what needs to be done.

Some professions pose risks to the health of a person with CF. For example, construction workers or home renovators are more likely to be exposed to dust as part of their jobs. The dust itself, or germs that get put into the air with it can get into the lungs of people with CF and cause damage. Jobs that put a person with CF at increased risk of lung damage should be carefully considered and avoided.

If college is on the horizon for you, you'll want to look at how easily CF care can be maintained in the new living situation of each school. A good first place to start is to find the nearest CF care center to the school on <https://www.cff.org/ccd/>. If you were to attend that school, you would need to establish yourself with the new CF center. You want to make sure that it's within easy driving distance or is accessible by public transportation from your school and that your health insurance plan is accepted at your new clinic. Ask when the clinic has appointments so you know the days that work for your schedule.

Once you decide on a school and with it a new CF care center, you'll want to speak with your current CF team to start the process of transferring care to the CF center you have chosen. Your medical records will need to be sent to the CF center in advance, before your first appointment there. You will have to authorize the release of your records from your current CF clinic and exchange the contact information of your old and new clinic so that they can communicate whenever necessary. Once you establish with the new clinic, make sure you know who to call if you become sick.

Just as in high school, a 504 plan can be utilized in college to decide on accommodations that would make your child's school experience easier. Work with the administration of your school or the Office for Students with Disabilities to help you decide what should be included in your 504 Plan. A person with CF might benefit from having an air-conditioned living space or a room or bathroom all to themselves. They might have to miss many days due to their illness, so more relaxed rules regarding attendance might be required. Having the option of recorded lectures from missed days can also be very effective in allowing a student with CF to keep up. They also might need extended deadlines if they are ill and hospitalized during a project or test.

There are some practical aspects of CF care to consider when leaving for college as well. You will want to have all the paperwork you might need for a CF clinic visit, or to refill your medications. Make a packet that includes your insurance information, pharmacy phone numbers and addresses, and prescription refill schedules. If you have medications that need to stay cold, get a small personal refrigerator so that you can access these medicines whenever needed. Factor in your treatment times when you are forming your class schedule. Have the materials you will need to sterilize your nebulizer equipment in your dorm room as well.

There are many scholarships available that can help a person pay for college, and there are even some that are specific for people with CF. If you are in search of scholarships that can help you pay for school, try accessing some of the following websites.

Cystic Fibrosis Research Inc. at <http://cfri.org/>

NeedyMeds at

[https://www.needymeds.org/scholarships.taf?function=list\\_disease\\_s&disease\\_id=93&disease=Cystic%20Fibrosis](https://www.needymeds.org/scholarships.taf?function=list_disease_s&disease_id=93&disease=Cystic%20Fibrosis)

U.S. Department of Education at <https://studentaid.ed.gov/sa/types/grants-scholarships#scholarship-types-applying>

National Association of Student Financial Aid Administrators at  
[http://www.nasfaa.org/State\\_Financial\\_Aid\\_Programs](http://www.nasfaa.org/State_Financial_Aid_Programs)

Additionally, the Cystic Fibrosis Foundation's program *Compass* can help you find scholarships that might be suited for you. They are available at **844-COMPASS** (844-266-7277) Monday through Friday, 9 a.m. until 7 p.m. ET, or you can also email them at [compass@cff.org](mailto:compass@cff.org).

**Q: What if my child is having trouble coping with body image issues?**

Having to adhere to the high-calorie diet of CF can cause a person to have complicated relationships with food, diet, and body image. Malabsorption and fighting off lung infections mean that most CF patients struggle with gaining weight and growth. As children grow up, they naturally become more aware of their bodies and appearances. They might encounter pressure from peers or the media to look or eat a certain way.

If a person with CF feels that they are underdeveloped or smaller than they would like to be, they might seek out unsafe options (anabolic steroids, for example) to increase their muscle mass. However, these drugs can have adverse effects on lung function and can be detrimental to the health of a person with CF. If your child is becoming frustrated with a body that they feel is too small, assure them that the high-calorie, high-protein diet is the safest way for them to obtain their maximum natural growth.

On the other end of the spectrum, a person with CF might enjoy their smaller size or low weight. These people might be inclined to skip using their pancreatic enzyme replacement or to restrict their calories to maintain their low weight, even though it puts them at risk for more lung infections. If your child is encountering body image issues like this, sometimes reaffirming the reasons for their CF diet and treatments can help. Your child's body requires more energy for them to be able to fight off lung infections. Because their bodies don't break down fat and protein as well as they should, they need to consume more calories. Their pancreatic enzymes are an integral part of making sure they can access the nutrients in their food. All these things aim at keeping them healthy and out of the hospital so that they have more time to live the life they choose. Additionally, puberty can be delayed if a child does not weigh enough or have enough body fat. This can be a powerful motivator for your child to eat well because most children want to develop at the appropriate time and in conjunction with their peers.

If being at a healthy weight makes you feel dissatisfied with your body image, exercise can also be a good way to increase your muscle mass. Your CF care team can help you come up with goals for your lifestyle and diet that will keep you healthy and help you obtain an appearance that you can feel confident about. The dietician on your CF care team is a great resource for helping you come up with a list of healthy alternative foods that still allow you to reach calorie intake goals. The social worker on your CF care team can help you find resources to work through coping with body image issues as well.

**Q: Information about clinical trials? How do I find trials that I can participate in?**

There are many reasons that a person might decide to participate in a clinical trial. One common reason is that in years past, other people took part in clinical trials that led to the development of the medicines

that are currently used to treat CF. The desire to give back in a way that they were once helped is a powerful drive for some. Being in a clinical trial can also provide a way for one to be actively involved in their own disease, and this can be very empowering. Interventional studies - where you either receive a medical treatment or a placebo (a placeholder “treatment” with no activity) – have the possible benefit of allowing access to a medicine early, before it is available to the rest of the population.

Despite all of the benefits of being in a clinical trial, you will want to carefully consider the risks before signing up. One thing to consider is the amount of involvement that a trial requires of its participants. Some trials require a person to travel to the site frequently, where others might require time spent in a facility away from home. You’ll want to make sure that the stipulations of the trial are workable for you before agreeing to take part. If you are in a clinical trial and do receive the active treatment (instead of the placebo), you are also at risk for the side effects that the medicine might cause.

Once you’ve weighed the pros and cons of participating, if you’re interested in getting involved in a trial, consult with your CF care team. They may be aware of trials that you qualify for and can put you in contact with them. You can also search online for trials using study finders on the following sites:

The CFF has a Clinical Trial Finder available at <https://www.cff.org/Trials/finder>.

The U.S. National Library of Medicine also has a study finder at <https://clinicaltrials.gov/>.

#### Q: How do I get my child ready for independence?

The goal with CF care is that your child will grow into a capable young adult who is able to successfully manage their CF when it comes time for them to leave home. During the teenage years, your child should take over more of the responsibility of their CF treatments than they have in the past. It’s likely that they already have a lot of knowledge about how to do CF treatments. It is also likely that at this age they know the names of all of their medications, the purpose of each medication and the order of their medications.

You can help them on the road to independence by encouraging them to communicate directly with the CF team. Have your child call for questions about appointments, or if they need to report a change in symptoms. Teach them that writing things down can help relieve some of the stress of remembering everything. For example, have them start adding their morning and afternoon CF care to their daily planner. Encourage your teen to use a calendar to keep track of important events, like appointments and medication refill order dates. They might find that using a phone calendar with reminders is a good option. If you’ve tried some of these options and are worried that your child is still forgetting, try having them text you after they have performed the CF task. If you don’t hear from them within a certain time frame, you can message them a reminder.

Your teen will eventually need to be able to communicate with their physicians and care team all on their own. You can help them work towards this by stepping back from being the main communicator in appointments. Giving them a chance to answer questions on their own can be an empowering step for your teenager. Be encouraging when they start meeting with their physician on their own for part of each visit. Your support can mean a lot in helping them feel more comfortable with their new self-advocacy.

**Q: When will my child transition to adult CF clinic? Where should they transition to? Why do you want to see my child without me?**

Around age 18, most people with CF make the transition from pediatric to adult care. We typically plan for this the summer after graduation from high school. This is no small change because parents, who may have been the primary managers of CF care up to this point, are no longer the ones in charge. There can be growing pains associated with this change for both the parents and the young adults involved.

Your CF care team will help this transition by making sure that your child has a good understanding of everything that goes into their CF care. They will also begin to see your child on their own (without a parent in the room) for a portion of each visit. These types of visits are called Partial Independent Visits and usually start at 15 years of age. The parent will be invited back into the room before the completion of the appointment. This will give the parent an opportunity to voice any concerns and/or ask questions about any changes in the plan of care. It is standard practice to start giving any patient around the age of 12 to 13 years old the chance to speak with their doctors by themselves. Getting practice talking with their physicians without a parent present is a huge step on the road to independence.

When your child turns 18, we are only allowed to discuss care with the parent/caregiver if they give us written consent to do so.

**Q: What about smoking/vaping/alcohol in a teenager with CF?**

Introducing any kind of smoke to the lungs of a person with CF is harmful. Smoking cigarettes, vaping and smoking marijuana are all dangerous for people with lungs. Even the second-hand smoke that comes from being around someone else who is smoking can be harmful and should be avoided. These products can cause damage to lung tissue in anyone who uses them, but they can cause lung function to decline much faster in a person with CF. Preserving lung function is the primary goal of all of the CF treatments, and smoking directly counteracts this. Smoking marijuana has an additional risk of introducing bacteria or fungi that might have been present on the plant into the airways of a person with CF.

People with CF need healthy immune systems to fight off lung infections. Drinking alcohol in excess can damage the immune system and leave people vulnerable to infections. In addition, if you drink alcohol and are hungover the next day, you are less likely to get all of your CF treatments done. People who misuse alcohol or recreational drugs are likely to stop prioritizing their CF care. This can show up in the form of forgetting to take medicines, ignoring treatments, or missing appointments. This mismanagement of CF leads to more time in the hospital, increased frequency of infections, and more rapid declines in lung function. Additionally, many of the medicines that treat CF can have toxic side effects if mixed with alcohol or street drugs.

Alcohol intake can be particularly harmful to people with CF related diabetes. Please always be honest about your use of any of these products.

**Q: How can I meet other people with CF?**

The CF Foundation has developed a program called Teen Connections for CF teens aged 13 to 18 who are searching for a way to virtually connect with others their age. The program uses methods of communication including online chats and video calls, and each event will be facilitated by an adult who has CF and a member of the CF Foundation staff. If you think your child might benefit from being a part of this community, visit [cff.org/teensignup](http://cff.org/teensignup) to help them register. Parental consent is required for all participants under the age of 18. There are separate groups for younger teens and older teens. Contact Aimee Jeffrey at [ajeffrey@cff.org](mailto:ajeffrey@cff.org) with any questions

CF Peer Connect is a mentoring program that is available to people with CF and their family members who are 16 years of age and older. English and Spanish speaking mentors are available and information can be found on the [CFF.org](http://CFF.org) website. If you have any questions about CF Peer Connect, email [peerconnect@cff.org](mailto:peerconnect@cff.org).

BreatheCon is a virtual event for adults with CF (18 years of age and older). This event is run by adults with CF. For more information, go to [www.cff.org/BreatheCon](http://www.cff.org/BreatheCon)

#### Q: If I'm feeling fine, why do I need treatments?

If you are not feeling sick you might start to wonder if you could use the time allotted to your CF treatments for something else. What's important to think about in this moment is that if you start skipping your treatments, you could get sick and end up in the hospital. When you're stuck in the hospital, your CF treatments will take up your whole day instead of just part of it. "Feeling fine," is a great thing! It means that your current treatment plan for CF is working and keeping you healthy. You want to keep on with this treatment plan that's working to keep you healthy rather than reducing it.

If you are really struggling with making time for CF treatments, talk to your CF care team. They can come up with suggestions for changes you could make to cut down on the time your treatment plan requires.

#### Q: What about sexuality/fertility issues with CF?

People with CF, especially if they have a low body weight, can experience a delayed puberty in comparison to their peers. Delayed puberty is seen more in the CF patients who have poorer overall health and have trouble gaining weight. Developing at a different pace from other people of the same age can have negative effects on self-esteem and may be a big source of concern for some teenagers. The best way to avoid a delay in puberty is to follow your CF treatment plan and get all of the calories you need from your high-fat and high-protein diet so that you can stay as healthy as possible.

#### Fertility in Males with CF:

The vas deferens is a tube that transports sperm from the testes to become part of the semen. In most males with CF, the vas deferens gets clogged with thick mucus so that no sperm can travel through it. This means that while a male with CF that is affected with this condition can make sperm in their testes, it never travels to become part of the semen. These individuals are not sterile, because they can still produce sperm; however, they would be considered infertile because they cannot cause a pregnancy without therapeutic assistance. It's important to note that this does not affect a male with CF's sexual

function. They are still able to ejaculate, but the semen that they produce will be sperm-free. Because sperm is still being made in the testes, there are procedures that can be done to remove these sperm and use them in assisted reproductive technologies (ART) to fertilize an egg. This means that even males with CF who are infertile still have the potential to father children if they so desire.

Fertility in Females with CF:

CF does not affect women's sexual development, function, or hormones; however, females with CF can have thicker mucus around the cervix that can make it harder for sperm to penetrate. Additionally, if a female with CF has poor health and lung function or is underweight, she might not ovulate regularly. Either of these issues can cause some decreased fertility in women with CF. In spite of these points, most women with CF are able to conceive a child on their own. If a person does need help with conceiving, there are assisted reproductive technology (ART) options to explore. Share your ideas about starting a family with your adult CF care team and they can get help you get started.

Even though there can be decreased fertility in males and females with CF, if you are not planning on having a baby some method of contraception should be used. Also, having CF does not lower your chance of getting or spreading a sexually transmitted infection (STI). Condoms should be used to keep you and your partner safe and disease-free.

**Q: What are signs of depression or anxiety in my teen?**

Adolescent symptoms of depression can present in a variety of ways. The most common symptom of depression in children (and adults) is *irritability*. Despite popular media portrayals of overwhelming sadness, the most regularly described symptom of depression in youth is chronic irritable mood, including increased anger and verbal aggression. While irritability and mood changes are common in teens and preteens, there are also noticeable changes in daily functioning that can signal their mood swings reflect more than just normal adolescent mood fluctuations. The following observed behaviors in addition to recent changes in your child's functioning (lower grades in school, recent change/decrease in hygiene, dropping out of activities, etc.) would warrant a consultation with a mental health provider and your CF team. Symptoms to look for are:

- Loss of enjoyment in activities, especially activities they used to love
- Less social engagement with friends or family members or isolating for increasing amounts of time
- Expressing feelings related to worthlessness or hopelessness such as "This is never going to get better," "This always happens to me," "I wish this would all just go away," or comments expressing not wanting to be a bother or a burden to others
- Expressing guilt, such as feeling that negative events are "their fault" or that they "always mess things up"
- Changes in sleeping and eating patterns
- Recent difficulties with attention and concentration
- Increased thoughts of wanting to go to sleep and never wake up, death, or "wanting it all to go away"

- Decreased energy or moving more slowly than usual

Adolescent anxiety symptoms are also highly varied. There are many types of anxiety that can impact children and adults alike. Most children and teens report anxiety surrounding everyday worries and social situations. While there are several anxiety symptoms that can be observed (panic attack, skin flushing, etc.) the majority of anxiety symptoms are less obvious. As with all mental health symptoms the following observed behaviors in addition to recent changes in your child's functioning (lower grades in school, recent change/decrease in hygiene, dropping out of activities, etc.) would warrant a consultation with a mental health provider and your CF team. Symptoms to look for are:

- Recent increase in physical symptoms that have no medical correlation or cause
- Increased embarrassment in situation that used to be more comfortable
- Avoiding specific places, situations, or crowds
- Checking in with parent more frequently about past and future events, such as "Did I do that okay?" or frequently asking about upcoming plans or plan changes
- Increased fears or phobias not observed before
- Expressing worry they are "losing it"
- Restlessness or increased irritability
- Easily exhausted or tired and not associated with physical activity
- Child appears preoccupied more than usual and often "goes blank" or "zones out"
- Changes in sleeping and eating patterns
- Muscle tension
- Child appearing shyer than before

Mental health issues for kids and adults have been worsened by the COVID-19 pandemic and are likely to persist even as things "return to normal". Please reach out to the CF team or your primary care doctor if you have any of the symptoms listed above.