Fontan Exercise Survey

| Who is completing this survey? | Parent / guardian of Fontan patientFontan patient |
|--|--|
| What is the Fontan patient's current age (in years)? | |
| Individuals with a Fontan circulation can have difficulties with e research has shown the benefit of physical activity in patients v and ability to participate in physical activity among other benefit becoming better understood by pediatric cardiologists but may With this survey we hope to better understand the discussions activity, time spent in physical activity, level of physical activity. Fontan circulation have about participating in physical activity. research project to help learn more about exercise among peopsurvey should take less than 15 minutes to complete. We appre | with a Fontan circulation including increased energy rits. The findings from these research studies is not be reaching individuals with a Fontan circulation. patients have with their cardiologists about physical participated in, and concerns individuals with a We invite you/your child to participate in a survey ple with a Fontan circulation. This brief, one-time |
| Your/your child's participation is completely voluntary. Participation strictly confidential. No link from the survey to you/your child wo fithe survey will be kept indefinitely for use in future studies. | |
| If you/your child agree to complete the questionnaire, read the "Start survey" button below which will send you to the web-bas | |
| I have read the information given above. I understand the meaning of this information. I consent/assent to participate in the project. I am completing this survey, and I am a person who has a Fontan circulation, or I am the parent/guardian of a child who has a Fontan circulation. | |
| If you are less than 15 years old, please have a parent assist you old, please only participate after getting permission from your participate after getting permissin | |
| ○ Start Survey ○ I do not Consent / Assent | |
| Is your parent / guardian aware you are taking this survey (and available to assist you if needed, if under age 15)? | ○ Yes ○ No |
| If | |

If under age 18, your parent / guardian must be aware you are taking this survey (and be available to answer any questions you might have, if under age 15).

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| What is your child's current age in months (0-36)? | | |
|---|---|---|
| | | |
| What is your child's sex? | | |
| What was your child's age when he/she had Fontan surgery (in closest half-year, for example 2, 2.5, 3, etc.)? | | |
| Where does your child currently receive heart care? | United States or US territoriesOther country | |
| Which country? | | |
| | | _ |

| vnich state or territory? | Alabama |
|---------------------------|--|
| | Alaska |
| | Arizona |
| | Arkansas |
| | California |
| | Colorado |
| | Connecticut |
| | Delaware |
| | Florida |
| | Georgia |
| | Hawaii |
| | Idaho |
| | Illinois |
| | O Indiana |
| | ◯ Iowa |
| | Kansas |
| | ○ Kentucky |
| | ○ Louisiana |
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| | ○ Massachusetts |
| | Michigan |
| | ○ Minnesota |
| | ○ Mississippi |
| | ○ Missouri |
| | ○ Montana |
| | ○ Nebraska |
| | ○ Nevada |
| | New Hampshire |
| | ○ New Jersey |
| | New Mexico |
| | New York |
| | North Carolina |
| | North Dakota |
| | Ohio |
| | Oklahoma |
| | Oregon |
| | O Pennsylvania |
| | Rhode Island |
| | South Carolina |
| | South Dakota |
| | ○ Tennessee |
| | ○ Texas |
| | ○ Utah |
| | Vermont |
| | ○ Virginia |
| | ○ Washington |
| | ○ West Virginia |
| | Wisconsin |
| | ○ Wyoming |
| | O District of Columbia |
| | O Puerto Rico |
| | Guam |
| | Northern Marianas |
| | US Virgin Islands |
| | American Samoa |
| | O 5 di 6 di . 6 |

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| Missed Question(s) | |
|--|--|
| At least one question on the prior page was not answered. If you proceed with the questionnaire. If skipped in error, please click of question(s). | |
| Where does your child receive his/her routine heart checkups? | A clinic or office that belongs to a hospital that does child heart surgeries A clinic or office that does not belong to a hospital that does child heart surgeries |
| How often is your child seen by his/her main cardiologist? | Less than every other yearEvery other yearOnce a yearMore than once a year |
| Some children that have had a Fontan operation are seen regularly by their pediatric cardiologist and are additionally seen by a separate cardiology clinic dedicated specifically to the follow up of patients with a Fontan circulation where they see providers from multiple specialties such as a liver doctor, kidney doctor, and/or a lung doctor in addition to the heart doctor. These clinics are sometimes referred to as a Single Ventricle Clinic, Single Ventricle Program, or Fontan clinic. In addition to your child's regular pediatric cardiologist is your child also seen in a clinic dedicated to follow up of patients with a Fontan circulation? | |
| How frequently is your child seen in the separate Fontan clinic? | ○ One time only ○ Less than every other year ○ Every other year ○ Once a year ○ More than once a year |

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| Missed Question(s) | | |
|--|-------|------|
| At least one question on the prior page was not answered proceed with the questionnaire. If skipped in error, pleas question(s). | | |
| Does your child have ongoing problems with his/her muscles, joints, or bones? | ○ Yes | ○ No |
| Do these problems limit his/her activity? | ○ Yes | ○ No |
| Does your child have neurologic problems such as seizures, cerebral palsy, or spasticity? | ○ Yes | ○ No |
| Do these problems limit his/her activity? | ○ Yes | ○ No |
| Has your child been diagnosed with a respiratory problem such as asthma, tracheostomy, or ventilator dependence? | ○ Yes | ○ No |
| Does this problem limit his/her activity? | ○ Yes | ○ No |



| Missed Question(s) | | |
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| At least one question on the prior page was not answered. If you intended to skip this question (or questions), please proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped question(s). | | |
| Is gym class offered as part of your child's schooling? | ○ Yes ○ No | |
| How much does your child participate in gym class at school? (Some people with a Fontan operation are told by their cardiologist that they can participate in gym class but should be able to limit themselves as needed. If this is what your child's cardiologist has told you then answer with how much your child is able to participate.) | Fully participates Participates but occasionally has to limit himself/herself Does not participate | |
| What is your child's limited participation due to? | S/he does not have enough energy to participate in the activity S/he has symptoms with physical activity (lightheaded, dizzy, blurry vision, chest pain, palpitations, and/or passes out) Limitations not related to his/her heart S/he does not have any limitations in his/her energy and does not have any symptoms with activity but is partially restricted by his/her cardiologist S/he does not have any limitations in his/her energy and does not have any symptoms with activity but is partially restricted by his/her parents or guardians | |
| Why does your child not participate? | S/he does not have enough energy to participate in the activity S/he has symptoms with physical activity (lightheaded, dizzy, blurry vision, chest pain, palpitations, and/or passes out) Limitations not related to his/her heart S/he does not have any limitations in his/her energy and does not have any symptoms with activity but is restricted by his/her cardiologist S/he does not have any limitations in his/her energy and does not have any symptoms with activity but is restricted by his/her parents or guardians | |
| Does your child participate in organized sports? | ○ Yes ○ No | |

| Please check the organized sports in which your child participates. | □ Football □ Basketball □ Softball □ Soccer □ Volleyball □ Tennis □ Track □ Boxing □ Canoeing / rowing □ Cycling □ Ice hockey □ Ice hockey □ Lacrosse □ Swimming □ Fencing □ Rugby □ Skating □ Wrestling □ Golf □ Gymnastics □ Martial arts □ Equestrian □ Bowling □ Cheer □ Other (Select all that apply) | |
|---|--|---|
| In what other organized sport does your child participate? | (Select all that apply) | |
| | | _ |

The following questions refer to how much time your child spends engaged in low energy activities such as going for a walk or leisurely riding his/her bike. Do not include time spent in more high energy or strenuous activities..

Missed Question(s)

At least one question on the prior page was not answered. If you intended to skip this question (or questions), please proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped question(s).

| How many days per week does your child spend greater than 30 continuous minutes engaged in activities such as going for a walk or leisurely riding his/her bike? | | |
|--|---|--|
| 0 0 1 0 2 0 3 0 4 0 5 0 6 0 7 | | |
| How many days per week does your child engage in activities such as going for a walk or leisurely riding his/her bike for less than 30 continuous minutes but more than 0 minutes? $ \bigcirc \ 0 \ \bigcirc \ 1 \ \bigcirc \ 2 \ \bigcirc \ 3 \ \bigcirc \ 4 \ \bigcirc \ 5 \ \bigcirc \ 6 \ \bigcirc \ 7 $ | | |
| How many total hours does your child spend per week engaged in activities such as going for a walk or leisurely riding his/her bike? | None to less than 1 hour 1 hour to less than 3 hours 3 hours to less than 5 hours 5 hours to less than 10 hours 10 hours or greater | |



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The following questions refer to how much time your child spends engaged in activities that involve higher levels of exertion such as running, playing soccer or basketball at the park, skateboarding, weight lifting, or skiing. For younger children this could also include running around the house, yard, etc. Do not include time spent participating in activities that require less exertion.

Missed Question(s)

At least one question on the prior page was not answered. If you intended to skip this question (or questions), please proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped question(s).

| How many days per week does your child spend greater than 30 continuous minutes engaged in activities that involve higher levels of exertion such as running, playing soccer or basketball at the park, skateboarding, weight lifting, or skiing? | | |
|--|--|--|
| $\bigcirc 0 \bigcirc 1 \bigcirc 2 \bigcirc 3 \bigcirc 4 \bigcirc 5 \bigcirc 6 \bigcirc 7$ | | |
| How many days per week does your child engage in activities the playing soccer or basketball at the park, skateboarding, weight but more than 0 minutes? $ \bigcirc 0 \bigcirc 1 \bigcirc 2 \bigcirc 3 \bigcirc 4 \bigcirc 5 \bigcirc 6 \bigcirc 7 $ | | |
| How many total hours does your child spend per week engaged in activities that involve higher levels of exertion such as running, playing soccer or basketball at the park, skateboarding, weight lifting, or skiing? | None to less than 1 hour 1 hour to less than 3 hours 3 hours to less than 5 hours 5 hours to less than 10 hours | |

○ 10 hours or greater

| Missed Question(s) | |
|--|--|
| At least one question on the prior page was not answered. proceed with the questionnaire. If skipped in error, please question(s). | |
| Do you ever limit your child's participation in physical activities because of his or her heart condition? | ○ Yes ○ No |
| What type(s) of sports or activities? | □ Contact sports □ Heavy weight lifting □ Intense aerobic activity (sustained endurance activities such as running, swimming, and other activities often referred to as "cardio") □ Competitive sports □ All activity (Select all that apply) |
| Why is your child's participation in contact sports limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
| What are your concerns in regards to contact sports? | Concern that something bad could happen to him/hele while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |
| Why is your child's participation in heavy weight lifting limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
| What are your concernsin regards to heavy weight lifting? | Concern that something bad could happen to him/her while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |

| Why is your child's participation in intense aerobic activity limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
|--|--|
| What are your concerns in regards to intense aerobic activity? | Concern that something bad could happen to him/her while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |
| Why is your child's participation in competitive sports limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
| What are your concerns in regards to competitive sports? | Concern that something bad could happen to him/her while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |
| Why is your child's participation in all activity limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
| What are your concerns in regard to all activity? | Concern that something bad could happen to him/her while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |

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| Missed Question(s) | |
|--|--|
| At least one question on the prior page was not answered. proceed with the questionnaire. If skipped in error, please question(s). | |
| Are there activities that your child would like to participate in but does not due to his or her medical condition? | ○ Yes ○ No |
| What type(s) of sports or activities? | ☐ Contact sports ☐ Heavy weight lifting ☐ Intense aerobic activity (sustained endurance activities such as running, swimming, and other activities often referred to as "cardio") ☐ Competitive sports ☐ All activity (Select all that apply) |
| Why is your child's participation in contact sports limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
| What are your concerns in regards to contact sports? | Concern that something bad could happen to him/he while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |
| Why is your child's participation in heavy weight lifting limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
| What are your concerns in regard to heavy weight lifting? | Concern that something bad could happen to him/he while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |

| Why is your child's participation in intense aerobic activity limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
|--|--|
| What are your concerns in regard to intense aerobic activity? | Concern that something bad could happen to him/her while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |
| Why is your child's participation in competitive sports limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
| What are your concerns in regard to all activity? | Concern that something bad could happen to him/her while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |
| Why is your child's participation in all activity limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of his/her heart condition He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her cardiologist He/she could participate (good energy and no symptoms with the activity) but is restricted by his/her parents and/or guardian He/she is limited by conditions other than his/her heart |
| What are your concerns in regard to all activity? | Concern that something bad could happen to him/her while engaged in the activity Concern that it would be harmful/unhealthy for him/her to participate in the activity on a frequent basis (Select all that apply) |

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| Missed Question(s) | | | |
|--|---|--|--|
| At least one question on the prior page was not answered. If you intended to skip this question (or questions), please proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped question(s). | | | |
| Child's Cardiologist Recommendations | | | |
| How often does your child's cardiologist discuss activity recommendations or restrictions with you? | ○ Never○ Some clinic visits○ Most clinic visits○ All clinic visits | | |
| Does your child's cardiologist discuss specific activities or exercises that s/he recommends? Examples could include recommending specific physical activities such as soccer or bike riding or specific exercises such as leg strengthening routines. | ○ Yes ○ No | | |
| Are there specific activities that s/he restricts? | ○ Yes ○ No | | |
| What type(s) of sports or activities does s/he restrict? | □ Contact sports □ Heavy weight lifting □ Intense aerobic activity (sustained endurance activities such as running, swimming, and other activities often referred to as "cardio") □ Competitive sports □ All activity (Check all that apply) | | |
| Does s/he give specific goals for time spent in activity? Examples could include recommending that your child participates in activity for at least an hour at a time or recommending overall activity goals of 60 minutes per day for at least four days per week. | ○ Yes ○ No | | |
| Does s/he give specific goals for intensity of activity? Examples could include recommending running on a treadmill with a goal speed, riding an elliptical or stationary bike with a goal RPM, or participating in activity with the goal of increasing heart rate to a certain goal or until sweating. | ○ Yes ○ No | | |
| Single Ventricle Clinic Cardiologist Recommendations | | | |
| How often does the cardiologist that your child sees in the single ventricle clinic discuss activity recommendations or restrictions with you? | NeverSome clinic visitsMost clinic visitsAll clinic visits | | |
| Does s/he discuss specific activities or exercises that s/he recommends? Examples could include recommending specific physical activities such as soccer or bike riding or specific exercises such as leg strengthening routines. | ○ Yes ○ No | | |

| Are there specific activities that s/he restricts? | |
|--|--|
| What type(s) of sports or activities does s/he restrict? | ☐ Contact sports ☐ Heavy weight lifting ☐ Intense aerobic activity (sustained endurance activities such as running, swimming, and other activities often referred to as "cardio") ☐ Competitive sports ☐ All activity (Select all that apply) |
| Does s/he give specific goals for time spent in activity? Examples could include recommending that your child participates in activity for at least an hour at a time or recommending overall activity goals of 60 minutes per day for at least four days per week. | |
| Does s/he give specific goals for intensity of activity? Examples could include recommending running on a treadmill with a goal speed, riding an elliptical or stationary bike with a goal RPM, or participating in activity with the goal of increasing heart rate to | ○ Yes ○ No |

| Missed Question(s) | |
|--|--|
| At least one question on the prior page was not answered. If y proceed with the questionnaire. If skipped in error, please clic question(s). | |
| How important do you think physical activity is to your child's health and quality of life? | Not important at all Somewhat important Important Very important Extremely important |
| How important does your child think physical activity is to his/her health and quality of life? | Not important at all Somewhat important Important Very important Extremely important |
| How interested is your child in physical activity? | ○ Not interested at all○ Somewhat interested○ Interested○ Very interested○ Extremely interested |
| Do you feel like your child's cardiologist's recommendations regarding physical activity are: | Much too restrictive A little too restrictive Just right A little too lenient Much too lenient |



To what extent do each of the following factors limit your child's activity beyond the restrictions recommended by his or her cardiologist?

Missed Question(s)

| At least one question on the prior page was not answered. If you intended to skip this question (or questions) | , please |
|--|----------|
| proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the sk | pped |
| question(s). | |

| | Significantly | Moderately | Somewhat | Very little | Not at all |
|--|------------------|------------|--|---|---------------------------------|
| My child does not have enough energy to participate in the activity | 0 | 0 | 0 | 0 | 0 |
| My child has symptoms with physical activity (lightheaded, dizzy, blurry vision, chest pain, palpitations, and/or passes out) | 0 | 0 | 0 | 0 | 0 |
| The child is not interested in physical activity | 0 | 0 | 0 | 0 | 0 |
| Concern from parents or guardians that the activity is not safe for the child because of his/her heart condition | 0 | 0 | 0 | 0 | 0 |
| Concern from the child that the activity is not safe for him/her because of his/her heart condition | 0 | 0 | 0 | 0 | 0 |
| Lack of access to activities | 0 | 0 | 0 | 0 | 0 |
| | | | | | |
| For various reasons, some patients choose to participate in activities against the recommendations of their cardiologist. Do you allow your child to participate in activities that the cardiologist recommends against? | | | | | |
| ○ Yes ○ No | | | | | |
| Why? Belief that your child can participate without increased risk Belief that while there is increased risk involve with the activity, the benefits of the activity outweigh the increased risk. | | | | | d risk involved |
| What benefits do you believe exist the restricted activities? | in participating | | Improved physic Weight loss Improvement in Improvement in stress, anxiety, of Decreased risk of as high blood prediabetes Social interaction select all that app | energy child's mood and or depression f chronic health o essure, high cholon n with other kids | conditions such esterol, and |

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| Missed Question(s) | |
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| At least one question on the prior page was not answered. If proceed with the questionnaire. If skipped in error, please cliquestion(s). | |
| Over the past few years have the recommendations from you physical activity? | ur child's pediatric cardiologist changed regarding |
| ○ Yes ○ No | |
| What recommendations has your child's pediatric cardiologist started making regarding physical activity? | My child's pediatric cardiologist started recommending specific activities or exercises. Examples could include recommending specific physical activities such as soccer or bike riding or specific exercises such as leg strengthening routines My child's pediatric cardiologist started discussing the benefits of physical activity but has not recommended specific activities or exercises My child's pediatric cardiologist started limiting my child's participation in physical activity |
| What reason does your child's pediatric cardiologist give for the new recommendations? | Benefit of physical activity for patients with a Fontan operation Benefit of physical activity for general health, but not specific to having had a Fontan operation Concern for recent changes in my child's heart that may make physical activity dangerous for him/her My child's pediatric cardiologist did not give a reason for the new recommendations Other |
| What other reason does your child's pediatric cardiologist give for the new recommendations? | |
| Has your child changed his/her physical activity level based of pediatric cardiologist? | on these changed recommendations from his/her |
| ○ Yes ○ No | |
| | |

| What changes has your child made to his/her physical activity level based on the recommendations of his/her | My child has started participating in organized sports |
|---|--|
| pediatric cardiologist? | ☐ My child has started a specific workout routine |
| | such as lower extremity weight training at the gym |
| | ☐ My child has started participating in or increased |
| | his/her participation in active but not strenuous |
| | activities such as going for a walk or leisurely riding his/her bike |
| | My child has started participating in or increased |
| | his/her participation in activities that involve |
| | higher levels of exertion such as running, playing |
| | soccer or basketball at the park, skateboarding, |
| | weight lifting, or skiing |
| | My child has stopped participating in organized sports |
| | ☐ My child has stopped participating in a specific |
| | workout routine such as lower extremity weight |
| | training at the gym |
| | ☐ My child has decreased or stopped his/her |
| | participation in low energy activities such as going for a walk or leisurely riding his/her bike |
| | My child has decreased or stopped his/her |
| | participation in activities that involve higher |
| | levels of exertion such as running, playing soccer |
| | or basketball at the park, skateboarding, weight |
| | lifting, or skiing (Select all that apply) |
| | (Select all triat apply) |

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| Missed Question(s) | |
|---|---|
| At least one question on the prior page was not answered. If you proceed with the questionnaire. If skipped in error, please click question(s). | |
| What is your sex? | ○ Male ○ Female |
| What was your age when you had Fontan surgery (in closest half-year, for example 2, 2.5, 3, etc.)? | |
| Where do you currently receive heart care? | United States or US territoriesOther country |
| Which country? | |



| Which state or territory? | ○ Alabama○ Alaska |
|---------------------------|--|
| | ○ Arizona |
| | ○ Arkansas |
| | California |
| | ○ Colorado |
| | ○ Connecticut |
| | O Delaware |
| | ○ Florida |
| | ○ Georgia |
| | O Hawaii |
| | ○ Idaho |
| | ○ Illinois |
| | ○ Indiana |
| | Olowa |
| | ○ Kansas |
| | ○ Kentucky |
| | ○ Louisiana |
| | Maine |
| | Maryland |
| | Massachusetts |
| | |
| | ◯ Minnesota |
| | |
| | O Missouri ' |
| | Montana |
| | Nebraska |
| | Nevada |
| | New Hampshire |
| | New Jersey |
| | ○ New Mexico |
| | New York |
| | North Carolina |
| | North Dakota |
| | ○ Ohio |
| | Oklahoma |
| | ○ Oregon |
| | Pennsylvania |
| | Rhode Island |
| | South Carolina |
| | South Dakota |
| | |
| | ○ Texas |
| | ○ Utah |
| | ○ Vermont |
| | ○ Virginia |
| | ○ Washington |
| | ○ West Virginia |
| | ○ Wisconsin |
| | ○ Wyoming |
| | O District of Columbia |
| | O Puerto Rico |
| | O Guam |
| | ○ Northern Marianas |
| | ○ US Virgin Islands |
| | American Samoa |

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| Missed Question(s) | |
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| At least one question on the prior page was not answered. If you proceed with the questionnaire. If skipped in error, please click (question(s). | |
| Where do you receive your routine heart checkups? | A clinic or office that belongs to a hospital that does child heart surgeries A clinic or office that does not belong to a hospital that does child heart surgeries |
| How often are you seen by your main cardiologist? | Less than every other yearEvery other yearOnce a yearMore than once a year |
| Some patients that have had a Fontan operation are seen regularly by their pediatric cardiologist and are additionally seen by a separate cardiology clinic dedicated specifically to the follow up of patients with a Fontan circulation where they see providers from multiple specialties such as a liver doctor, kidney doctor, and/or a lung doctor in addition to the heart doctor. These clinics are sometimes referred to as a Single Ventricle Clinic, Single Ventricle Program, or Fontan clinic. In addition to your regular pediatric cardiologist are you also seen in a clinic dedicated to follow up of patients with a Fontan circulation? | Yes ○ No |
| How frequently are you seen in the separate Fontan clinic? | ○ One time only○ Less than every other year○ Every other year○ Once a year○ More than once a year |

| Missed Question(s) | | | |
|---|-------|------|--|
| At least one question on the prior page was not answered. If you intended to skip this question (or questions), please proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped question(s). | | | |
| Do you have ongoing problems with your muscles, joints, or bones? | ○ Yes | ○ No | |
| Do these problems limit your activity? | ○ Yes | ○ No | |
| Do you have neurologic problems such as seizures, cerebral palsy, or spasticity? | ○ Yes | ○ No | |
| Do these problems limit your activity? | ○ Yes | ○ No | |
| Have you been diagnosed with a respiratory problem such as asthma, tracheostomy, or ventilator dependence? | ○ Yes | ○ No | |
| Do these problems limit your activity? | ○ Yes | ○ No | |

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| Missed Question(s) | |
|---|---|
| At least one question on the prior page was not answered. I proceed with the questionnaire. If skipped in error, please c question(s). | |
| Are you enrolled in school? | ○ Yes ○ No |
| Is gym class offered as part of your schooling? | ○ Yes ○ No |
| How much do you participate in gym class at school? (Some people with a Fontan operation are told by their cardiologist that they can participate in gym class but should be able to limit themselves as needed. If this is what your cardiologist has told you then answer with how much you are able to participate.) | Fully participateParticipate but occasionally have to limit yourselfDo not participate |
| What is your limited participation due to? | □ Do not have enough energy to participate in the activity □ Have symptoms with physical activity (lightheaded dizzy, blurry vision, chest pain, palpitations, and/or passes out) □ Limitations not related to your heart □ Do not have any limitations in your energy and do not have any symptoms with activity but you're partially restricted by your cardiologist □ Do not have any limitations in your energy and do not have any symptoms with activity but you're partially restricted by your parents or guardians (Select all that apply) |
| Why do you not participate? | □ Do not have enough energy to participate in the activity □ Have symptoms with physical activity (lightheaded dizzy, blurry vision, chest pain, palpitations, and/or passes out) □ Limitations not related to your heart □ Do not have any limitations in your energy and do not have any symptoms with activity but you're restricted by your cardiologist □ Do not have any limitations in your energy and do not have any symptoms with activity but you're restricted by your parents or guardians (Select all that apply) |
| Do you participate in organized sports? | ○ Yes ○ No |

| Please check the organized sports in which you participate. | Football Basketball Baseball Softball Soccer Volleyball Tennis Track Boxing Canoeing / rowing Cycling Ice hockey Field hockey Lacrosse Swimming Fencing Rugby Skating Wrestling Golf Gymnastics Martial arts Equestrian Bowling Cheer Other (Select all that apply) |
|---|---|
| In what other organized sport do you participate? | |

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The following questions refer to how much time you spend engaged in low energy activities such as going for a walk or leisurely riding your bike. Do not include time spent in more high energy or strenuous activities..

Missed Question(s)

At least one question on the prior page was not answered. If you intended to skip this question (or questions), please proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped question(s).

| How many days per week do you spend greater than 30 continuous minutes engaged in activities such as going for a walk or leisurely riding your bike? | | | |
|--|---|--|--|
| 0 01 02 03 04 05 06 07 | | | |
| How many days per week do you engage in activities such as going for a walk or leisurely riding your bike for less than 30 continuous minutes but more than 0 minutes? | | | |
| 0 01 02 03 04 05 06 07 | | | |
| How many total hours do you spend per week engaged in activities such as going for a walk or leisurely riding your bike? | ○ None to less than 1 hour ○ 1 hour to less than 3 hours ○ 3 hours to less than 5 hours ○ 5 hours to less than 10 hours ○ 10 hours or greater | | |

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The following questions refer to how much time you spend engaged in activities that involve higher levels or exertion such as running, playing soccer or basketball at the park, skateboarding, weight lifting, or skiing. Do not include time spent participating in activities that require less exertion.

Missed Question(s)

At least one question on the prior page was not answered. If you intended to skip this question (or questions), please proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped question(s).

| question(s). | |
|--|---|
| How many days per week do you spend greater than 30 conti levels of exertion such as running, playing soccer or basketba | |
| $\bigcirc 0 \bigcirc 1 \bigcirc 2 \bigcirc 3 \bigcirc 4 \bigcirc 5 \bigcirc 6 \bigcirc 7$ | |
| How many days per week do you engage in activities that invesoccer or basketball at the park, skateboarding, weight lifting than 0 minutes? | |
| $\bigcirc 0 \bigcirc 1 \bigcirc 2 \bigcirc 3 \bigcirc 4 \bigcirc 5 \bigcirc 6 \bigcirc 7$ | |
| How many total hours do you spend per week engaged in activities that involve higher levels of exertion such as running, playing soccer or basketball at the park, skateboarding, weight lifting, or skiing? | None to less than 1 hour 1 hour to less than 3 hours 3 hours to less than 5 hours 5 hours to less than 10 hours 10 hours or greater |

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| Missed Question(s) | |
|--|--|
| At least one question on the prior page was not answered. proceed with the questionnaire. If skipped in error, please question(s). | |
| Do you ever limit your participation in physical activities because of your heart condition? | ○ Yes ○ No |
| What type(s) of sports or activities? | ☐ Contact sports ☐ Heavy weight lifting ☐ Intense aerobic activity (sustained endurance activities such as running, swimming, and other activities often referred to as "cardio") ☐ Competitive sports ☐ All activity (Select all that apply) |
| Why is your participation in contact sports limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
| What are your concerns in regards to contact sports? | □ Concern that something bad could happen to you while engaged in the activity □ Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |
| Why is your participation in heavy weight lifting limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
| What are your concernsin regards to heavy weight lifting? | □ Concern that something bad could happen to you while engaged in the activity □ Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |

| Why is your participation in intense aerobic activity limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
|--|--|
| What are your concerns in regards to intense aerobic activity? | Concern that something bad could happen to you while engaged in the activity Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |
| Why is your participation in competitve sports limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
| What are your concerns in regard to all activity? | Concern that something bad could happen to you while engaged in the activity Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |
| Why is your participation in all activity limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
| What are your concerns in regard to all activity? | Concern that something bad could happen to you while engaged in the activity Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |

| Missed Question(s) | |
|---|--|
| At least one question on the prior page was not answered proceed with the questionnaire. If skipped in error, please question(s). | . If you intended to skip this question (or questions), please click on Previous Page to go back to answer the skipped |
| Are there activities that you would like to participate in but do not due to your medical condition? | ○ Yes ○ No |
| What type(s) of sports or activities? | ☐ Contact sports ☐ Heavy weight lifting ☐ Intense aerobic activity (sustained endurance activities such as running, swimming, and other activities often referred to as "cardio") ☐ Competitive sports ☐ All activity (Select all that apply) |
| Why is your participation in contact sports limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
| What are your concerns in regards to contact sports? | Concern that something bad could happen to you while engaged in the activity Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |
| Why is your participation in heavy weight lifting limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
| What are your concerns in regard to heavy weight lifting? | □ Concern that something bad could happen to you while engaged in the activity □ Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |

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| Why is your participation in intense aerobic activity limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
|--|--|
| What are your concerns in regard to intense aerobic activity? | Concern that something bad could happen to you while engaged in the activity Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |
| Why is your participation in competitive sports limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
| What are your concerns in regard to all activity? | Concern that something bad could happen to you while engaged in the activity Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |
| Why is your participation in all activity limited? | Symptoms during activity Not enough energy to participate Concern that the activity would not be tolerated because of your heart condition You could participate (good energy and no symptoms with the activity) but you are restricted by your cardiologist You could participate (good energy and no symptoms with the activity) but you are restricted by your parents and/or guardian You are limited by conditions other than your heart |
| What are your concerns in regard to all activity? | □ Concern that something bad could happen to you while engaged in the activity □ Concern that it would be harmful/unhealthy for you to participate in the activity on a frequent basis (Select all that apply) |

| Missed Question(s) | |
|--|---|
| At least one question on the prior page was not answered. If you proceed with the questionnaire. If skipped in error, please click (question(s). | |
| Your Cardiologist Recommendations | |
| How often does your cardiologist discuss activity recommendations or restrictions with you? | ○ Never○ Some clinic visits○ Most clinic visits○ All clinic visits |
| Does your cardiologist discuss specific activities or exercises that s/he recommends? Examples could include recommending specific physical activities such as soccer or bike riding or specific exercises such as leg strengthening routines. | ○ Yes ○ No |
| Are there specific activities that s/he restricts? | ○ Yes ○ No |
| What type(s) of sports or activities does s/he restrict? | □ Contact sports □ Heavy weight lifting □ Intense aerobic activity (sustained endurance activities such as running, swimming, and other activities often referred to as "cardio") □ Competitive sports □ All activity (Check all that apply) |
| Does s/he give specific goals for time spent in activity? Examples could include recommending that you participates in activity for at least an hour at a time or recommending overall activity goals of 60 minutes per day for at least four days per week. | ○ Yes ○ No |
| Does s/he give specific goals for intensity of activity? Examples could include recommending running on a treadmill with a goal speed, riding an elliptical or stationary bike with a goal RPM, or participating in activity with the goal of increasing heart rate to a certain goal or until sweating. | ○ Yes ○ No |
| Single Ventricle Clinic Cardiologist Recommendations | |
| How often does the cardiologist that you see in the single ventricle clinic discuss activity recommendations or restrictions with you? | ○ Never○ Some clinic visits○ Most clinic visits○ All clinic visits |
| Does s/he discuss specific activities or exercises that s/he recommends? Examples could include recommending specific physical activities such as soccer or bike riding or specific exercises such as leg strengthening routines. | |



| Are there specific activities that s/he restricts? | ○ Yes ○ No |
|--|--|
| What type(s) of sports or activities does s/he restrict? | □ Contact sports □ Heavy weight lifting □ Intense aerobic activity (sustained endurance activities such as running, swimming, and other activities often referred to as "cardio") □ Competitive sports □ All activity (Select all that apply) |
| Does s/he give specific goals for time spent in activity? Examples could include recommending that you participates in activity for at least an hour at a time or recommending overall activity goals of 60 minutes per day for at least four days per week. | |
| Does s/he give specific goals for intensity of activity? Examples could include recommending running on a treadmill with a goal speed, riding an elliptical or stationary bike with a goal RPM, or participating in activity with the goal of increasing heart rate to a certain goal or until sweating. | ○ Yes ○ No |

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| Missed Question(s) | |
|--|---|
| At least one question on the prior page was not answered. If yo proceed with the questionnaire. If skipped in error, please click question(s). | |
| How important do you think physical activity is to your health and quality of life? | Not important at all Somewhat important Important Very important Extremely important |
| How interested are you in physical activity? | ○ Not interested at all ○ Somewhat interested ○ Interested ○ Very interested ○ Extremely interested |
| Do you feel like your cardiologist's recommendations regarding physical activity are: | Much too restrictive A little too restrictive Just right A little too lenient Much too lenient |



To what extent do each of the following factors limit your activity beyond the restrictions recommended by your cardiologist?

Missed Question(s)

| At least one question on the prior page was not answered. If you intended to skip this question (or questions), ple $_i$ | ase |
|--|-----|
| proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped | k |
| question(s). | |

| | Significantly | Moderately | Somewhat | Very little | Not at all |
|---|---------------|------------|--|--|-----------------|
| I do not have enough energy to participate in the activity | 0 | 0 | 0 | 0 | 0 |
| I have symptoms with physical activity (lightheaded, dizzy, blurry vision, chest pain, palpitations, and/or passes out) | 0 | 0 | 0 | 0 | 0 |
| I am not interested in physical activity | 0 | 0 | 0 | 0 | 0 |
| My parents or guardians are concerned that the activity is not safe for me because of my heart condition | 0 | 0 | 0 | 0 | 0 |
| I am concerned that the activity is not safe for me because of my heart condition | 0 | 0 | 0 | 0 | 0 |
| I do not have access to activities | 0 | 0 | 0 | 0 | 0 |
| | | | | | |
| For various reasons, some patients cardiologist. Do you participate in a | | | | | their |
| ○ Yes ○ No | | | | | |
| Why? | | | Belief that I can risk Belief that while with the activity, outweigh the inc | there is increase the benefits of t | d risk involved |
| What benefits do you believe exist in participating in the restricted activities? | | | ☐ Improved physical fitness ☐ Weight loss ☐ Improvement in energy ☐ Improvement in mood and/or decrease in stress, anxiety, or depression ☐ Decreased risk of chronic health conditions such as high blood pressure, high cholesterol, and diabetes ☐ Social interaction with other people (Select all that apply) | | |

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| Missed Question(s) | |
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| At least one question on the prior page was not answered. If y proceed with the questionnaire. If skipped in error, please clic question(s). | |
| Over the past few years have the recommendations from you activity? | r pediatric cardiologist changed regarding physical |
| ○ Yes ○ No | |
| What recommendations has your pediatric cardiologist started making regarding physical activity? | My pediatric cardiologist started recommending specific activities or exercises. Examples could include recommending specific physical activities such as soccer or bike riding or specific exercises such as leg strengthening routines My pediatric cardiologist started discussing the benefits of physical activity but has not recommended specific activities or exercises My pediatric cardiologist started limiting my participation in physical activity |
| What reason does your pediatric cardiologist give for the new recommendations? | Benefit of physical activity for patients with a Fontan operation Benefit of physical activity for general health, but not specific to having had a Fontan operation Concern for recent changes in my heart that may make physical activity dangerous for me My pediatric cardiologist did not give a reason for the new recommendations Other |
| What other reason does your pediatric cardiologist give for the new recommendations? | |
| Have you changed your physical activity level based on these cardiologist? | e changed recommendations from your pediatric |
| ○ Yes ○ No | |
| | |

| What changes have you made to your physical activity level based on the recommendations of your pediatric cardiologist? | ☐ I have started participating in organized sports ☐ I have started a specific workout routine such as lower extremity weight training at the gym ☐ I have started participating in or increased my participation in active but not strenuous activities such as going for a walk or leisurely riding my bike ☐ I have started participating in or increased my participation in activities that involve higher levels of exertion such as running, playing soccer or basketball at the park, skateboarding, weight lifting, or skiing ☐ I have stopped participating in organized sports ☐ I have stopped participating in a specific workout routine such as lower extremity weight training a the gym ☐ I have decreased or stopped my participation in low energy activities such as going for a walk or leisurely riding my bike ☐ I have decreased or stopped my participation in activities that involve higher levels of exertion such as running, playing soccer or basketball at |
|---|--|
| | the park, skateboarding, weight lifting, or skiing (Select all that apply) |

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Missed Question(s)

At least one question on the prior page was not answered. If you intended to skip this question (or questions), please proceed with the questionnaire. If skipped in error, please click on Previous Page to go back to answer the skipped question(s).

Thank you for your participation in this survey!

Thank you for your participation in this survey!

No Consent / Assent

You selected 'I do not Consent / Assent'. If this was selected in error, please click the Previous Page button and select 'Start Survey'.

If you are under age 18, your parent / guardian must be aware you are taking this survey (and be available to answer any questions you might have, if under age 15) before you can complete this survey.

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