

Schistosomiasis and
Female Genital
Schistosomiasis
(FGS): a booklet for
educators

Welcome to Ms.
Owusu's class



Let's learn together!



Introduction

Students learn best when they are active participants in learning. They like to discuss amongst each other, draw pictures and play games. Educators can help children learn about schistosomiasis and female genital schistosomiasis (FGS) through activities and games that are fun.

This ***Schistosomiasis and FGS booklet*** made for teachers, their students and the students' parents include teacher lessons plans with their corresponding activities as well as colouring sheets and a word search. These lesson plans and activities are intended to support active learning about prevention, control, and treatment of schistosomiasis and female genital schistosomiasis, including:

Lesson Activities: These activities reinforce concepts in the teacher lesson plan.

Each teacher lesson plan and activity in this booklet provides information on the objective of the activity, the needed supplies, and how to conduct the activity. Please take time to review the instruction sheets and obtain any necessary supplies before working with your students. Please use local names in your language for schistosomiasis. Feel free to be creative and make up your own games to reinforce your lesson plans.

This booklet also includes a Frequently Asked Questions sheet named ***Schistosomiasis and Your Child*** which aims to provide information for parents about schistosomiasis and FGS in hopes that they may also learn about the disease and reinforce the information learned at school at home.

Have fun!



Games have been adapted from the Global Schistosomiasis Alliance.



Images and text have been adapted from a pictorial guide created between the Ministry of Health Cote d'Ivoire and SCI Foundation.



Schistosomiasis, FGS and You

What is schistosomiasis?

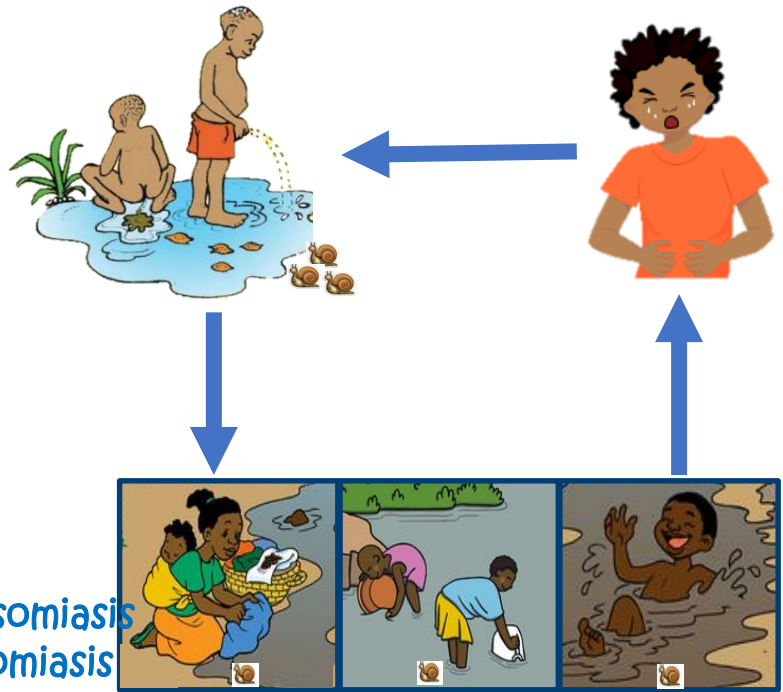
Schistosomiasis is a parasitic disease that affects people – both girls and boys. Children who have schistosomiasis may feel tired all the time, have trouble paying attention in school, have pain in the belly, and they may urinate blood.

How do children get schistosomiasis and Female Genital Schistosomiasis (FGS)?

Schistosomiasis is caused by a type of worm (parasite) called the blood fluke. The blood fluke lives part of its life in a special kind of small snail that is found in local rivers, streams, ponds, rice fields, and lakes.

Snails carry the schistosomiasis worm, just like certain mosquitoes carry malaria parasites. The snails get the worm when somebody who has schistosomiasis urinates or defecates in the water and spreads the schistosomiasis eggs to others. Those eggs will hatch and become little worms that can enter human skin when other people are in contact with water infected with schistosomiasis. Those worms will grow and lay eggs inside the human body.

Female genital schistosomiasis (FGS) is a disease of the female genital area. FGS can cause young girls and women to have pain under the stomach, blood in their urine, and a burning and/or itching sensation in their genital area (private area). If it is left untreated, FGS can lead to miscarriage, infertility and may increase the risk of HIV.



Credits: Images © World Health Organization

What is the treatment?

It's a medicine called praziquantel (PZQ).

You need to take praziquantel when there is mass drug administration or when you have symptoms of schistosomiasis.

Praziquantel is a safe drug and millions of people take it every year. Children in your area may be given the tablets while they are at school. Sometimes there are some side effects from the treatment, they are usually mild (headache, stomachache, nausea, dizziness, tiredness or fever).

To avoid side effects from the treatment, eat some food before taking the tablets.

For more information, contact your health provider.



Lesson 1: What is urogenital schistosomiasis?

Teacher's notes

Learning objective: To understand and discuss the cause of schistosomiasis and symptoms of urogenital schistosomiasis.

Activity: Ask the children to draw something they like to do for fun and discuss risks of that activity for getting schistosomiasis.

Time: 30 minutes

How do you get schistosomiasis (use local name)?

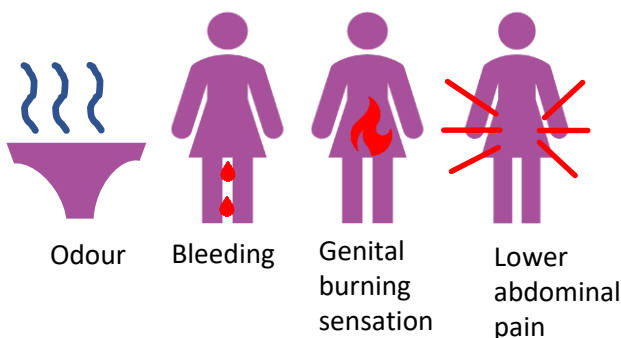
When somebody who has schistosomiasis urinates or defecates in the water, eggs come out in their urine. The eggs hatch in the water and infect aquatic snails. When a snail is infected, it releases tiny immature worms (blood flukes), called cercariae (pronounced cer-car-i-a /,sər'kerēə/) into the water. They are so tiny you cannot see them. When you get into water with the immature worm, they can enter your body through your skin. Once in your body, they can become mature worms (blood flukes). Every time a person steps in fresh water where infected snails live, they can get schistosomiasis.



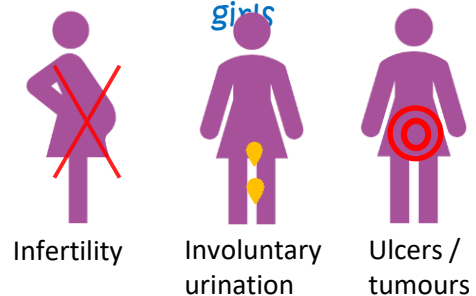
What are symptoms of schistosomiasis (use local name)?

Schistosomiasis causes children to have less energy and have problems learning. Schistosomiasis can keep children from growing as much as they should. When schistosomiasis lasts a long time, it can damage the bladder and kidneys. Urogenital schistosomiasis is a type of schistosomiasis that affects the urinary system (kidneys, ureters, urinary bladder, and urethra) and genital system (penis, clitoris, vagina, testes, ovaries, and uterus) system. All types of schistosomiasis can make people tired and make it harder for children to learn and grow.

Symptoms of FGs in women / girls



Complications of FGs in women / girls



In boys, infection with schistosomiasis also includes having blood in the urine, pain and feelings of tiredness.

Lesson 2: How do you prevent schistosomiasis?

Teacher's notes

Learning objective: To understand how to prevent schistosomiasis

Activity: Word search (older kids) and colouring sheet (younger kids).

Time: 20 minutes

Can you prevent schistosomiasis?

Yes, you can prevent schistosomiasis!

There are a few ways that you can avoid infection:

- Avoid swimming or playing in water where infected snails live.
- Prevent other people from getting schistosomiasis by not urinating or defecating into water bodies like streams, ponds, lakes, rivers, and rice fields.
- Get your household water from a borehole, well or piped water.
- If you have to use the rivers or lakes because there is no other water source available, boil or filter your water before using it. Avoid prolonged exposure in the water.
- Remember if one member of your household has blood in their urine, then others in your household who also swim in the same rivers or lakes may also be infected even if they don't show any symptoms.
- Take treatment for schistosomiasis when it is available in your area or seek help if you experience symptoms.



Check for understanding

- What creature needs to be in the water for a person to get schistosomiasis?
- How does schistosomiasis get in the snail?
- How does a person get schistosomiasis?
- Name three ways to prevent getting infected with schistosomiasis.

Lesson 3: How can you treat schistosomiasis?

Teacher's notes

Learning objective: To describe how schistosomiasis is treated and understand the importance of participating in mass drug administration.

Activity: Be creative! Come up with a fun game to reinforce learning.

Time: 30 minutes

What is the treatment for schistosomiasis and female genital schistosomiasis?

Praziquantel is the name of the medicine that is used to treat schistosomiasis. The drug is safe whether you have schistosomiasis symptoms or not.

You need to take praziquantel once every 6 months if you use or enter contaminated or dirty water. The number of praziquantel pills to take depends on your height or weight. It is important to take all the pills at once.

Praziquantel is a safe drug and millions of people take it every year. Children in your area may be given the tablets while they are at school. Sometimes there are some effects from the treatment, they are usually mild (headache, stomachache, nausea, dizziness, tiredness or fever). To avoid side effects from the treatment, eat something before taking the tablets.



Testing for schistosomiasis

People with symptoms (children or adults) of schistosomiasis may be asked to urinate into a clean container with a lid. Remember that the eggs are very small and cannot be seen with your eyes. To see them, the health provider will use a microscope for the eggs.



Most often, children will receive treatment while at school without needing to be tested. However, it is possible to experience symptoms of schistosomiasis infection outside of the annual treatment at schools. If this happens in your household, you should visit your local health provider and mention that you have been going into the freshwater bodies in your area (swimming, washing, wading, fetching water).

Activity: Word search

Female Genital Schistosomiasis

G	P	R	A	Z	I	Q	U	A	N	T	E	L	K
E	N	S	G	R	L	I	E	T	S	L	L	U	S
N	M	W	G	B	A	T	H	I	N	G	Y	G	E
I	I	N	N	S	E	E	K	A	L	T	F	N	E
T	G	Y	I	N	A	O	I	H	I	B	E	N	L
A	E	A	M	A	I	N	L	L	N	O	E	L	E
L	L	G	M	I	U	L	I	Z	D	I	S	T	N
U	A	W	I	L	A	T	L	T	G	G	E	F	S
L	I	O	W	F	R	T	A	Y	A	R	E	V	F
C	O	R	S	E	L	S	H	R	I	T	S	N	B
E	L	M	F	V	G	T	H	O	I	L	I	A	W
R	N	N	E	E	S	G	G	E	H	L	S	O	E
S	I	N	W	R	G	F	I	S	H	I	N	G	N
N	E	N	I	R	U	Y	D	O	O	L	B	A	R

SANITATION
 BLOODY URINE
 FGS
 HYGIENE
 SWIMMING
 WORM
 SNAIL FEVER
 EGGS
 INFERTILITY
 LAKE
 FISHING
 GENITAL ULCERS
 BATHING
 PRAZIQUANTEL

Play this puzzle online at : <https://thewordsearch.com/puzzle/2590627/>

Activity: Colouring sheet



**TREATING AND PREVENTING
SCHISTOSOMIASIS WILL HELP YOU TO
FEEL STRONG AND STUDY IN
SCHOOL.**

Frequently Asked Questions

1. Is schistosomiasis or FGS transmitted through contact?

There is no transmission from person to person. People shed the eggs in urine or feces that then gets into water sources. The eggs hatch in freshwater releasing the parasite to infect snails which then release the tiny immature worms (cercariae) which penetrate human skin to begin the human infection.

2. Is FGS sexually transmitted sexually transmitted?

No, it is not. The worm (parasite) cannot be transmitted through sexual contact. Transmission is only through contact with infected water bodies.

3. If contaminated water is thoroughly boiled before drinking, will chances of schistosoma infection reduce?

Schistosomiasis is not transmitted by drinking contaminated water or food. The worm (parasite) penetrates the skin when it comes into contact with water while swimming, bathing, or collecting water - directly infecting the person.

4. If water is taken from a contaminated river infested with Schistosomiasis is allowed to stay for some time, can someone still be infected with Schistosomiasis?

After 3 days in a bucket (or other container) it is safe to have skin-contact with water. However, a tank which is topped-up with infested water will never be safe.

5. Are symptoms of schistosomiasis the same for boys and girls?

Some of the symptoms (blood in urine, pain in the belly, tiredness) are the same in boys and girls.

6. Is it possible to identify an infected water body before a community starts showing signs of infection?

There is no simple way to test water to see if it is infected, but the presence of snails may indicate that schistosomiasis transmission is happening.

7. Why can't we just fix the water source?

Safe uncontaminated running water for all people is the best solution. Avoiding contact with, urinating, defecating, bathing, swimming or washing in with rivers, lakes, streams or other freshwater bodies can help prevent schistosomiasis infection or transmission of schistosomiasis

8. Is Praziquantel the only drug for treating schistosomiasis or FGS?

Yes, currently praziquantel is the only drug available for treatment of FGS.

9. Is Praziquantel safe?

The drug is safe whether you have schistosomiasis, Female Genital Schistosomiasis or not.

10. After treatment, can someone be reinfected with schistosomiasis or FGS?

Yes, re-infection may occur after treatment. Though, the risk of developing severe disease is reduced and even reversed when treatment is initiated and repeated in childhood. Someone can be reinfected the day after treatment if there is contact with infected freshwater bodies. It takes 6 to 8 weeks for worms to develop if re-infected after treatment.

11. How many times can one be treated?

There is no limitation to the number of times you can be treated. In community or school-based programs mass drug administration (MDA) treatment is given 1 or 2 times a year.

Additional information

Glossary

Schistosomiasis Schistosomiasis, also known as bilharzia or snail fever, is an infection caused by a type of worm (parasite). The worm that causes schistosomiasis is called the blood fluke. Schistosomiasis mainly affects boys and girls 5-14 years old in Africa, in Asia and South America. Adults can also have schistosomiasis.

Female Genital Schistosomiasis (FGS) Female genital schistosomiasis (FGS) is a disease of the female genital area caused by the presence of fresh-water worm eggs in that same area. It affects women of all ages, including young girls. FGS can cause young girls and women to have pain under the stomach, blood in their urine, and a burning and/or itching sensation in their genital area (private area)

Praziquantel (PZQ) Praziquantel is a drug used to treat schistosomiasis, also known as snail fever or bilharzia.

Mass drug administration (MDA) Mass Drug Administration involves giving treatment to every eligible member of a population or every person living in a defined geographical area. This means that all eligible people, regardless of whether or not they are infected, receive treatment for schistosomiasis.

Additional abbreviations

FAST	FGS Accelerated Scale Together Package
FAQ	Frequently Asked Questions
HIV	Human Immunodeficiency Virus

Additional Resources

<https://fastpackage.org/>

<https://www.eliminatestschisto.org/resources/teacher-toolkit-for-urogenital-schistosomiasis>

https://countdown.lstmed.ac.uk/sites/default/files/centre/CountdownLearningPack_Ghana_v5online.pdf