

MSH/TML Shared Microbiology Service Policy & Procedure Manual	<b>Policy # MI\PAR\06\08\v01</b>	Page 1 of 2
Section: <b>Parasitology Manual</b>	Subject Title: <b>Collection and Laboratory Procedures for Specimens Other Than Stool or Blood</b>	
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## Skin Biopsy

### PRINCIPLE

Microfilariae of *Onchocerca volvulus* and *Mansonella streptocerca* do not appear in the blood stream. Examination of small pieces of skin tissue or aspiration of tissue fluid from a nodule may demonstrate microfilaria. Bloodless skin snips should be submitted in a small volume of saline as soon as possible.

### SPECIMEN

A skin snip in a concave well slide with saline added.

### REAGENTS

0.85% normal saline

### SAFETY

Microfilaria require passage through their insect vector before they become infective, therefore the sample cannot produce a filaria infection from a sharps stick.

### PROCEDURE

1. Place the skin snips immediately in a drop of saline and cover and place in a moist chamber so the specimen will not dry out.
2. Examine under low power for microfilaria when first received and at time points of 1, 4, & 24 hours.
3. If microfilaria are found capture and stain with haematoxylin (see following procedure)

### QUALITY CONTROL

- Do not subject the sample to extremes of temperature or let it dry out.

MSH/TML Shared Microbiology Service Policy & Procedure Manual	<b>Policy # MI\PAR\06\08\v01</b>	Page 2 of 2
<b>Parasitology Manual</b>		

- Ensure that the microscope has been calibrated in the last year and that the results of the calibration are displayed on the microscope base.
- See QC comments associated with haematoxylin staining.

## REPORT

Report as negative after 24H or if positive then any microfilaria or other parasites seen. Speciation requires haematoxylin staining of the observed microfilaria (see **Hematoxylin Stain for Microfilaria**).

## LIMITATIONS OF PROCEDURE

- Microfilaria will not be evenly distributed in all parts of the skin, therefore a skin sample may be from a region that does not contain microfilaria.
- The size of the skin sample may be too small to detect infections with low numbers.

## AUTHOR

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## REFERENCES

Garcia LS, Bruckner DA. Diagnostic Medical Parasitology. 3rd Edition. ASM Press, Washington DC. Pp676-688 1997.

Leventhal and Cheadle 1996 Medical Parasitology: A Self Instructional Text. 4<sup>th</sup>, Edition Mosby-Wolfe