

# Malaria Testing at DSHS Austin Laboratory

Dear Provider,

The DSHS Laboratory works with local and regional healthcare facilities and laboratories across Texas to rapidly detect malaria, a parasitic disease transmitted to humans by the bite of an infected mosquito. About 2,000 cases of malaria are diagnosed in the United States each year. The majority of cases are in travelers and immigrants from regions where malaria is endemic.

Symptoms of malaria include fever and flu-like illness, including shaking chills, headache, muscle aches, and tiredness. Nausea, vomiting, and diarrhea may also occur. Malaria may cause anemia and jaundice because of the loss of red blood cells. If not promptly treated, the infection can become severe and may cause kidney failure, seizures, mental confusion, coma, and death.

## Required Specimens for Malaria Testing

### For Morphologic Examination (Microscopy)

- **Ideal Specimen submissions** include one EDTA whole blood specimen along with two thin and two thick smears.
- **Peripheral Blood Smears:** Prepare a minimum of two thin and two thick blood smears as soon as possible after blood collection. These can be submitted stained or un-stained. Step-by-step guidance on how to prepare blood smears is available at [Malaria procedures benchaid.pub \(cdc.gov\)](https://www.cdc.gov/malaria/diagnostic-lab-procedures/benchaidd.pdf).
- **EDTA Whole Blood:** Collect a minimum of 200  $\mu$ L of blood in purple/lavender top tubes. **Prefer more if available.**

### For Molecular Testing (PCR)

- **EDTA Whole Blood:** Collect a minimum of 200  $\mu$ L of blood in purple/lavender top tubes. **Prefer more if available.**

## Required Storage and Shipping Temperatures

### Blood Smear/Slide Specimens:

- Ship at ambient temperatures but may also be submitted cold with whole blood specimens.

### Whole Blood Specimens:

- Store at 2°C–8°C. Ship overnight in insulated containers with ice packs.

## Required Specimen Submission Form and Supplemental Information

- All specimens must be submitted with a G2-B Specimen Submission Form. (Please ensure your submitter contact information is up to date)
- Please provide any relevant patient symptoms, treatment and travel history. This can be in the form of a report or a handwritten note.
- **Section 2 Patient Information:** All specimens must have a minimum of **two unique patient identifiers** that **exactly match** the unique identifiers on their submission form. If the patient's name is abbreviated or cut off on the specimen label and differs from the name on the submission form, the sample will be rejected.
- For slide submissions, every primary specimen (slide) within the slide transport container must be labeled with **two un-abbreviated patient identifiers** that **match the specimen form exactly**.
  - If slides have only one identifier, the slide box must have a **minimum of two identifiers** that match the form exactly.
  - If date of collection (DOC) is provided on the specimen, it must match the form. (DOC is only required on the form)
  - If part of a case investigation, check "Outbreak Association" found at the bottom of Section 2.
- **Section 3 Specimen Source or Type (Required):** Check "Blood".
- **Section 4 Parasitology:** Check "Malaria/Blood Parasite Exam"
- **Section 7 Payor Source:** For general submissions, check "Submitter" or "private insurance". If part of a case investigation, check "Zoonosis". If this section is left blank, the submitter is automatically billed.

**NEW SUBMITTERS:** To set up a submitter account, download a Submitter ID Number Request Form, available at [Submitter-ID-Request-Form-Sept--2017.pdf \(texas.gov\)](#). Complete all applicable fields and email to [labinfo@dshs.texas.gov](mailto:labinfo@dshs.texas.gov) or fax to 512-776-7533. A Lab Reporting team member will create a submitter account, provide a G2-B submission form, a supply order form, and Security Right forms to request Web Portal access. Please indicate "Malaria" so your request can be expedited.

## Malaria Testing and Specimen Submission Questions?

For questions about specimen suitability or available tests, please contact the Medical Parasitology Team at (512) 776-7560 or email [Medical.parasitology@dshs.texas.gov](mailto:Medical.parasitology@dshs.texas.gov).

**Please refer to the attached, printable one-page flyers for more guidance on collecting and shipping malaria specimens to DSHS laboratory.**