GUIDE

What should a mission team wear where mosquitoes carry dengue?

Where bright, short sleeve mission shirts work against the team, what the CDC says to wear, which colors mosquitoes ignore and how permethrin changes your order date.

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Most mission shirt advice, including our own planning guide, says to pick a bright color so leaders can count heads and a short sleeve for the heat. On a trip into dengue country, both choices can work against the team. This page covers where that advice breaks and what to order instead.

Where does the usual mission shirt advice fail?

The usual advice fails where the mosquitoes that carry dengue are active in daylight, which is exactly when a team is outside working. The CDC Yellow Book says dengue is widespread in the Dominican Republic, with 3,964 cases and 38 deaths reported in 2020, and that transmission often rises during the rainy season from May to November. It names Aedes aegypti, the main dengue mosquito there, as present in both rural and urban areas. The CDC dengue chapter also lists Haiti and parts of Mexico among places with frequent or continuous risk. Those are the same destinations the Ministry Gear mission trip designs are built for.

A short sleeve shirt leaves forearms bare for the whole workday. And a bright red or orange shirt may be the wrong kind of bright.

Does shirt color matter to a mosquito?

Research suggests it can. In a study published in Nature Communications on February 4, 2022, University of Washington researchers led by biology professor Jeffrey Riffell found that female Aedes aegypti, after smelling carbon dioxide, flew toward red, orange, black or cyan targets

and kept ignoring green, blue or purple ones. Without that odor cue, the mosquitoes largely ignored the targets regardless of color. Riffell said that wearing clothes that avoid the attractive colors could be another way to prevent a bite.

Two limits keep this in proportion. The study tested colored dots in a lab chamber, not shirts on people outdoors. And the CDC clothing guidance for mosquitoes says nothing about color. Treat color as a free edge you get while choosing, never as protection. Since the team picks a color anyway, pick from the ignored side: a strong blue, green or purple still finds a teammate in a crowded airport. Watch turquoise and teal in particular, because a shade that reads as blue green to people can sit close to cyan, which was on the attractive side.

What does the CDC recommend wearing?

The CDC Yellow Book tells travelers to minimize exposed skin by wearing long-sleeved shirts, long pants, boots and hats, and says that tucking in shirts and wearing closed shoes instead of sandals also reduces risk. For a mission team, that points to a long sleeve team shirt. The Ministry Gear gear guide names the Gildan 2400 cotton long sleeve as a versatile choice for mission trips. Because the shirt will often be tucked in, keep the church name and trip details on the chest and upper back, where a tucked shirt still shows them.

Can a printed team shirt be treated with permethrin?

Yes. The CDC says to use 0.5% permethrin to treat clothing and gear, following the product label, and the Yellow Book says clothing treated at that concentration repels and kills mosquitoes, ticks and other biting insects. Permethrin goes on fabric only, never on skin. The Yellow Book also says items must be treated 24 to 48 hours before packing so they can dry.

The Yellow Book names pretreated clothing sold as Insect Shield, BugsAway and Insect Blocker, but a custom team shirt arrives untreated, so the treating happens at home. Sawyer, which makes a widely sold permethrin spray, says its treatment lasts up to 6 weeks or 6 washings, whichever comes first. A team doing laundry partway through a long trip should count washes. Sawyer also warns that permethrin is toxic to cats until it has completely dried, which matters for whoever treats the shirts.

How does this change when you order?

Treatment adds days to the timeline. The shirts have to arrive, be treated, dry for 24 to 48 hours and then be packed. One leader treating every shirt in a single afternoon is simpler than asking each family to do it. When you request a design, give the Ministry Gear team the date the shirts need to be in hand for treatment, which comes before departure day.

What can a team shirt not do?

No shirt replaces repellent on exposed skin. The Yellow Book says to apply repellent only to exposed skin or clothing, as the label directs, and never to skin covered by clothing. When the team also wears sunscreen, the CDC says to put sunscreen on first and repellent after. Some areas carry malaria risk as well: the CDC recommends prescription medicine for travelers going to certain areas of the Dominican Republic. Check the CDC Travelers' Health page for your destination and book a travel clinic visit well before the team leaves.

When the clothing plan is set, get your free design. A designer puts your church name, trip and verse on the long sleeve shirt and color you choose, and nothing prints until you approve it. You can also call 888-812-4044, Monday to Friday, 9am to 5pm Pacific.

Ministry Gear 888-812-4044 ministrygear.com

Ministry Gear designs custom church t-shirts for youth groups, camps, mission trips, worship teams and church events.