

CONTEXT

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EXPECTED CONTEXT FOR USE OF THE KIDIABAND

The Kidiaband, as a type of durable medical equipment, is paid for by insurance companies upon the recommendation of a child's physician. It is also possible to purchase the Kidiaband directly, and the purchase price is tax-deductible as a medical expense.

The Kidiaband is designed for children ages five to twelve. It is to be worn constantly, even during sleep, as glucose levels can dip very low at night, when children have not eaten for a long time. The band of the Kidiaband is soft fabric, so it is comfortable on children's skin. The band is also removable, so that it can be washed. Although there is no good way to make insulin injections fun, the Kidiaband at least provides feedback and reminders in a child-friendly way, such that children can have the positive feedback of seeing Q-Lee, the character on the face of the Kidiaband, express happiness

when glucose levels are within a reasonable range.

The Kidiaband app gives parents a new way to track their children's glucose levels over time, so that they will have to take their children to the doctor for check-ups less often. Kidiaband's alert texts also help parents to worry less when their children are away from their supervision, such as when they are at school, and its data-sharing capabilities help to ensure that other people in charge of the child's well-being are also aware of their his or her glucose levels and can assist with self-management accordingly.

The functionality of the Kidiaband may expand in the future to include data gathered by other types of sensors, including but not limited to prescription drug levels in sweat, pulse, skin temperature, location, and movement.

Two major objections to the Kidiaband

have been made: First, that use of the Kidiaband discourages parents from taking their children to the doctor, causing health issues to be overlooked; and second, that Kidiaband data is insecure and could be hacked, violating confidentiality. To address these issues, we have added a warning to the Kidiaband Instruction Manual that it is not a substitute for regular medical visits and have encouraged pediatricians and insurance companies to state this explicitly to parents. We have also taken the precaution of encrypting Kidiaband data while in transit, with each patient having a separate encryption key.

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THE SHORT VERSION:

- The Kidiaband is recommended by pediatricians and paid for by insurance companies
- The Kidiaband is comfortable and washable and should be worn constantly
- The Kidiaband App enables parents to worry less and schedule fewer doctors' appointments
- The Kidiaband is not a substitute for regular medical visits
- Kidiaband data is encrypted to address security issues

