IISc finds a way to customise medicine dose

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ARE you a diabetic? The Indian Institute of Science (IISc) has found a way to help you know the right dose of Insulin for you.

A team of four researchers at the institute has come up with a way to determine the exact dose of medicine needed by a patient. The parameters for determining the dosage of medicines for patients is very general and is predetermined by standards mostly based on western studies,” said Dr Radhakanth Padhy, who heads the team of researchers.

He explained how the technology worked. A miniature monitoring and Insulin pumping machine can be attached to the body. The machine monitors the insulin level in the body and, based on that, the required amount of Insulin is pumped in. “When insulin is taken by a diabetic person, he doesn’t know how much to take. Too much insulin can also harm,” he said, adding that this technology could “help in eliminating side effects of over or low dosage”.

The technology can help eliminate the side effects of over or low dosage. According to Padhy, the technology can be used for monitoring medicines for other diseases like blood cancer, brain tumour and even milk fever in cows.

“The researchers have successfully designed this technology named Optimal and Adaptive Control Technology and have found 100 per cent success in large scale computer simulation,” he said.

Dr Padhy and his team completed the research in collaboration with the Centre for Cellular and Molecular Biology and the National Brain Research Centre this year. Soon, these centres will conduct trials on this study.

“This is a closed loop method where patients are treated individually. Many times doctors change their prescription for patients after some days,” a researcher said. “This would eliminate such problems.”