

# HEALTH REPORT

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## OBESE PEOPLE MAY GET WRONG DRUG DOSAGE

We live in a world where many different sizes of garments, soft drink containers and meal portions are made to fit people of different sizes and shapes. However, there is one important area where little to no consideration has been given for the size of a person and their personal needs. This has to do with prescription medications where a “one size dose that fits all” is still the standard means of distribution.

There are new concerns being forwarded that “one size fits all” dosages of medicine may not be correct for everyone, especially in the case of our society where there are now more obese people than ever before. A report recently published in the journal *Pharmacotherapy* suggests that doctors are often not aware of the possibility that obese people may not be getting the correct dosage of a drug for their size. This could result in their getting an inappropriate drug therapy for an infectious disease.

“Very obese individuals in some cases, even those with severe infections, may be getting only half the necessary dose of a prescription drug such as an antibiotic,” said David Bearden, a clinical associate professor in the College of Pharmacy at Oregon State University. “That’s a problem. It could lead not only to antibiotic failure but also an increase in antibiotic resistance, another serious issue.”

Drug companies have looked at the differences in body size between children and adults for years by offering children’s sized dosages for many drugs. But with adults, very little to no attention has been given to this issue. Right now, the drug industry basically just considers everyone to be between 150-170 pounds and dispenses prescription drugs accordingly. However, “the number of individuals with the highest body mass index, very obese people, is up 600 percent between 1986 and 2000,” said Bearden, and this is an area that definitely needs to be addressed.

The problem is considered to be most severe in the prescribing of antibiotics because they are often used to treat life-threatening infections where bad things can happen to a person if they don’t get the proper dosage of a drug. It is considered to be less of a concern where medications are taken for an extended period of time, such as for high blood pressure or cholesterol. The reason is that patients are more frequently monitored for these medications and adjustments can be made by a doctor as needed.

One of the items that the report says will need much further study is to determine how adipose tissue (body fat) interacts with drugs. The study points out that with some medications this tissue absorbs larger amounts of the drug while other tissues absorb lesser amounts. As a result, some drugs may be effective in their current doses while others are ineffective. Currently, the correct information to make such determinations does not exist, according to the report.

“This is enough of an issue that if I were a very obese person being given an antibiotic, I would discuss it with my doctor,” Bearden said. “Hopefully the doctor will already have considered it and will be able to address your concerns. If not, then it’s a conversation you need to have, and more medical specialists, including pharmacists, may need to be consulted.”