



## MEGACOLON

### **What is megacolon?**

Megacolon is a nerve disease where the nerves in the large intestine and colon fail to function or are not present. This leads to reduced, or lack of, peristalsis and therefore the inability to move feces through the colon. What this means is: your rat can't poop well!

### **What does megacolon mean for my rat?**

Megacolon leads to:

- Malnutrition
- Failure to thrive
- Abdominal distention/bloating
- Constipation
- Death

### **Who is at risk for megacolon?**

Megacolon is a genetic disease. It appears to be polygenetic and it is virtually impossible to determine whether offspring will have the disease even if the parents appear to be high-risk for megacolon. If multiple siblings of a rat have megacolon, it is more likely that the rat will have megacolon as well. There is also a correlation between megacolon and "high-white" rats (**not** PEW), including black-eyed whites, husky, blazed, split-capped, tri-colored, and odd-eyed.

### **How do I know if my rat has megacolon?**

The condition usually appears in rats between 4-6 weeks old, but can appear as early as a rat starts eating solid food (2 weeks) or as late as 10 months. Babies may show a failure to thrive even though they seem to eat well. This happens due to the lack of proper absorption of nutrients in their digestive tract. Bloating, diarrhea, and severe constipation (or alternating diarrhea/constipation) will be the first signs you notice to diagnose. Late-onset megacolon (which does not appear until 2-5 months) may be a milder form of the disease, but often does progress in severity over time. Occasionally the disease may present very late (4-10 months). With no early warning signs, the disease may be too far advanced to treat by the time the owner/foster notices.

A 4-week old rat with megacolon:



A 6 month old rat with megacolon:



### How do I treat megacolon?

Rats may have this disease with differing severity. If a rat has some mobility within the large intestine, treatment may be successful. Unfortunately for many rats, treatment may not be possible. There is no cure; only treatments that may help ease the severity. It is often recommended to consider euthanasia rather than to let the disease follow its lethal course.

Should you choose to treat, some options that you may try include:

- A low-residue, easy to digest diet such as the Woody Megacolon Diet [http://ratguide.com/health/figures/megacolon\\_figure\\_5.php](http://ratguide.com/health/figures/megacolon_figure_5.php). This allows for a greater amount of nutrients to be absorbed, as well as for less undigested material to pass through the colon, contributing to the fecal mass.
- Providing additional fluids by offering fruits such as cantaloupe and watermelon to encourage necessary fluid intake. You can also try soaking lab blocks in water or making a mush.
- Enemas with mineral oil or mild liquid soap (such as Ivory soap) to help with the passage of dry stools. It is not recommended that you use saline for an enema, as it may cause shock.
- You can help your rat have bowel movements. The colon (which runs along the spine from under the ribs to the anus) can be squeezed from side to side and top to bottom to help push things along (see figure below). You may also need to pinch the area just under the tail to help feces out of the anus.
- A couple of medications have been found to be helpful when used in conjunction with other treatments (such as the above). They are **lactulose**, a stool softener, and **senokot**, a laxative. It is not, however, recommended that laxatives be given in the event of a serious, unresolved blockage. See your vet for more information on these treatments. The medication **cisapride**, although designed as a drug acting on muscles to move feces through the bowel, has been shown to be of little benefit to rats with genetic megacolon.

Helping squeeze out poops:

Remember, these are only temporary solutions, and for many rats with megacolon euthanasia may be the most humane option.

### Sources and further reading

- <http://www.ratfanclub.org/megacolon.html>
- <http://ratguide.com/health/digestive/megacolon.php>

