Megacolon in Rabbits

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Biography

HRS Educator and fosterer since 2003

Ran the Cape Fear House Rabbit Society in Wilmington, NC for 12 years

Currently serve as a board member, lead HRS Educator, and fosterer for Triangle Rabbits

Shared my home with four rabbits with megacolon
What is megacolon?

Megacolon, according to Fontanesi et al. 2014, is a "marked dilatation of the colon due to a severe dysmotility affecting the large bowel”

Two types of megacolon rabbits: genetic and acquired
Who is likely to have megacolon?

Bunnies with megacolon:
- Are frequently mostly white with some coat color, usually around the eyes, ears and along the back
- May have a broken mustache

Congenital condition present at birth:
- Symptoms generally start around age three and worsen with age
Symptoms and signs

Fecals:
- Large and oval shaped compared to the perfectly round normal rabbit droppings
- May be normal consistency or very wet and even mucusy
- Present from birth regardless of diet

Cecals:
- Usually larger and smellier than normal rabbit cecals
Genetics

- In 2010 scientists in Italy found the KIT gene, also known as the English Spotting Gene.
- KIT gene is tied to both color spotting and a reduction in the number of nerves supplied to the GI system.
- The En allele on the KIT gene controls color.
- En/en heterozygous rabbits have the classic English Spot appearance and en/en rabbits are heavily spotted or nearly all color.
Expression of En gene in spotted rabbits

en/en Rabbit

En/en Rabbit

En/En Rabbits
## Genetics

<table>
<thead>
<tr>
<th>Parents</th>
<th>% of kit inheriting En/En</th>
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<tbody>
<tr>
<td>Charlie (En/En) x Charlie (En/En)</td>
<td>100</td>
</tr>
<tr>
<td>Broken (En/en) x Charlie (En/En)</td>
<td>50</td>
</tr>
<tr>
<td>Broken (En/en) x Broken (En/en)</td>
<td>25</td>
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<tr>
<td>Solid (en/en) x Broken (En/en)</td>
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<tr>
<td>Solid (en/en) x Charlie (En/En)</td>
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<td>Solid (en/en) x Solid (en/en)</td>
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What is the impact of all this on the rabbit?

Lack the proper number of nerve cells enervating the cecum and large bowel

- Slower movement of the colon
- Irregular contractions
- Longer, slower flow of contents toward the anus
- Stools are larger and misshapen

Rabbit is more vulnerable to GI slowdown and ultimate shutdown
What is the impact of all this on the rabbit?

Irregular liquid absorption through the intestinal wall

• Stool tends to be too loose or too dry

• All these abnormalities may cause noticeable distention of the abdomen

Intestinal absorption is not normal so mc rabbits need extra nutrition
What can I do?

- Recognize this congenital condition
- Remember megacolon is manageable
- Get connected with the most rabbit savvy vet you can find
First steps for management

- No incidents of runny stool or GI stasis
- Examine your bunny’s diet
  - Extruded alfalfa pellets
  - Lots of hay
  - Green vegetables with emphasis on herbs
If you suspect megacolon:

- Discuss your concerns with your vet
- Do your homework and bring articles
- Rule out bacterial infection
- Discuss gut motility and pain medications with your vet
Living with rabbits with megacolon
Summary

• Be proactive
• Learn to read the signs of GI slowdown
• Talk with your vet about steps you can take at home


• Megacolon: Why you need to know about this condition that affects many rabbits. Dani Tomlin, Bunny Mad! Magazine, Issue 27, Spring 2017.


Acknowledgements

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www.vgr1.com/megacolon

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Thank you!

Questions?

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