

Dear Doctor,

Soft Coated Wheaten Terriers have been found to have a higher frequency than other breeds of certain serious diseases. Our veterinary researchers, [Meryl Littman, ACVIM](#), [Shelly Vaden, ACVIM](#), and [David Williams ECVIM-CA/ACVIM](#), recommend owners test their Wheatens annually for evidence of:

- Protein losing enteropathy (PLE) and nephropathy (PLN)
- Renal Dysplasia
- Addison's Disease

Their recommendations to owners and their veterinarians includes:

**1. Run the following lab tests:**

- 1) *Complete Blood Count*
- 2) *Biochemical profile*, incl:
  - Total protein
  - Albumin
  - Creatinine
  - BUN
  - Cholesterol
  - Sodium (Na)
  - Potassium (K)
  - Phosphorus
- 3) *Routine Urinalysis*, incl
  - Specific gravity
  - Dipstick
  - Urinary sediment
- 4) *Urine Protein/Creatinine Ratio*

- Your client may also ask you to run the ERD Test for Microalbuminuria or arrange for a Fecal alpha-1 protease inhibitor ("Fecal API") test through Texas A&M.
- *If these results lead you to suspect RD or Addison's*, the following tests can be run:

**RD:**

- Abdominal radiographs/Ultrasound
- Final confirmation of RD: Kidney biopsy (wedge, **not** Tru-cut); call Dr. Meryl Littman (*see the end of this letter for her contact information*) to discuss size

**Addison's:**

- ACTH stimulation test

**2. Note the differences and similarities between these diseases:**

	<u>RD</u>	<u>PLN</u>	<u>PLE</u>	<u>ADDISON'S</u>
<b>Age of Onset</b>	<1-3 yrs	Mean ~ 6 yrs	Mean ~ 4.5 yrs	Young (in general)
<b>Sex Predilection</b>	None noted	Female: male=1.6	Female: male=1.7	Female (in general)
<b>PU/PD</b>	Yes	Only 25% had PU/PD	No, unless on steroids	Yes
<b>Vomiting/Diarrhea</b>	Yes	Yes	Yes	Yes
<b>Ascites/edema</b>	No	Possibly	Possibly	No
<b>Azotemia</b>	Yes	Eventually	No	Possibly (pre-

	<u>RD</u>	<u>PLN</u>	<u>PLE</u>	<u>ADDISON'S</u>
				renal)
<b>Kidney Size</b>	Small	May be normal	Normal	Normal
<b>Hypoalbuminemia</b>	No	Yes	Yes	Possibly (melena)
<b>Hypoglobulinemia</b>	No	No	Yes	Possibly (melena)
<b>Hypercholesterolemia</b>	No	Yes	Hypocholesterolemia	No
<b>Low Na/K ratio</b>	Not noted	Rarely (~10%)	Rarely (~10%)	Yes
<b>Urine Specific Gravity</b>	Isosthenuria	Mean 1.023	Mean 1.033	Low (medullary washout)
<b>Proteinuria</b>	None or mild	Yes	No	No
<b>Histopathology (K=kidney; I=intestine)</b>	Fetal glomeruli, fetal mesenchyme (K)	Glomerulonephritis, glomerulosclerosis (K)	IBD, lymphangiectasia, lymphangitis (I)	

Source: 1999 ACVIM PROCEEDINGS: WHEATEN TERRIER PLE-PLN; Meryl P. Littman, VMD, DACVIM, Philadelphia, PA

### 3. Look for these additional lab results:

<u>RD</u>	<u>PLN</u>	<u>PLE</u>	<u>ADDISON'S</u>
<ul style="list-style-type: none"> <li>Elevated creatinine</li> <li>Elevated BUN</li> </ul>	<ul style="list-style-type: none"> <li>Elevated serum creatinine</li> <li>Elevated BUN</li> <li>Elevated Urine Protein Creatinine Ratio* (<b>very important</b>)</li> </ul>	<ul style="list-style-type: none"> <li>Eosinophilia</li> <li>Lymphopenia</li> <li>Low total protein</li> </ul>	<ul style="list-style-type: none"> <li>Elevated serum creatinine</li> <li>Elevated BUN</li> </ul>

Dr. Shelley Vaden, ACVIM, North Carolina State University and Dr. Meryl Littman, ACVIM, University of Pennsylvania state that:

"Research suggests that any dog with UPC ratio in excess of 0.4 and no evidence of urinary tract infection should be closely monitored for the development of glomerular disease. This finding should be of particular concern in any breed of dog that is known to have familial glomerular diseases, such as the Wheatens."

If any lab results show any abnormalities, you can consult with Dr. Meryl Littman or Dr. Shelly Vaden for current recommendations on diagnosis and treatment. They are working under SCWTCA and American Kennel Club Canine Health Foundation sponsored research grants to help us better understand, treat and one day, prevent these diseases.

<p><b>Dr. Meryl P. Littman</b> Associate Professor of Medicine University of Pennsylvania School of Veterinary Medicine 3900 Delancey Street Philadelphia, PA 19104-6010 Phone: (215)898-9288 FAX (215) 573-6050 (<i>include cover sheet</i>) Email: <a href="mailto:merylitt@vet.upenn.edu">merylitt@vet.upenn.edu</a></p>	<p><b>Dr. Shelly Vaden</b> North Carolina State University College of Veterinary Medicine 4700 Hillsborough Street Raleigh, NC 27606 Phone: 919-513-6235 FAX: (919) 513-6336 (<i>include cover sheet</i>) Email: <a href="mailto:shelly_vaden@ncsu.edu">shelly_vaden@ncsu.edu</a></p>
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