



## **WHEATEN HEALTH INITIATIVE**

*'To provide a platform for the reception and transmission of information about the health and well being of the Soft-Coated Wheaten Terrier'*

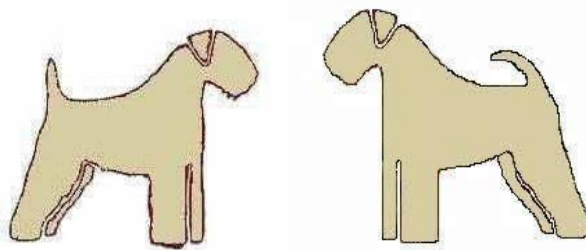
# **Health Services**

For The  
Soft-Coated Wheaten Terrier

Available from

## **The Animal Health Trust**

Information for Vets and Owners



*"Their Health In Our Hands"*

Web Site: [www.wheatenhealthinitiative.com](http://www.wheatenhealthinitiative.com)

E-mail: [wheatenhealth@aol.com](mailto:wheatenhealth@aol.com)



## **WHEATEN HEALTH INITIATIVE**

***'To provide a platform for the reception and transmission of information about the health and well being of the Soft-Coated Wheaten Terrier'***

**W**heaten **H**ealth **I**nitiative (**WHI**) is a UK based organisation which was formed in 2003, and is an autonomous health group working independently of any other organisation or club. Our sole aim is caring for the health and well being of the Soft Coated Wheaten Terrier.

Your Wheaten is an important member of a unique Breed. Ideally, every Wheaten should be tested annually and a copy of the test results forwarded to the breeder and the SCWT Club of GB, so it can be included in their health records. If you wish to share this information with WHI, we are always happy to receive it but more importantly please think about sharing this information with other breeders.

### ***"Their Health In Our Hands"***

Our Logo is designed to remind us **all** that the health of this beautiful breed, is literally, in our hands, owners and breeders alike. It also depicts our vision of global co-operation.

*Without your help, the future health of the breed cannot be assured.*

WHI would like to acknowledge the help and guidance given by the Animal Health Trust (AHT) which enabled the development of the breed specific protocols in this pack.

If you have any questions on any of the topics discussed in this pack please contact WHI.

WHI would welcome feedback with reference to the testing procedure.

***After reading this pack, please pass it to your Vet for consideration prior to arranging an appointment to have your Wheaten tested.***

If you prefer to have your Wheaten blood tested 'in-house' at your own Veterinary practice, then WHI have information on testing protocols on our web site: [www.wheatenhealthinitiative.com](http://www.wheatenhealthinitiative.com) - Health>Testing Protocols>Information for Owners and/or Information for Vets, or ask WHI steering group for a copy.

***Please note that every effort has been made to ensure that there are no errors in this document. If any errors have occurred or the information becomes obsolete due to new developments, WHI will amend the information at the earliest possible time.***

Thank you  
Wheaten Health Initiative

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©Produced from information on the SCWT Club of America web site, with their kind permission.
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©Produced from information on the SCWT Club of America web site, with their kind permission.
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Dear Vet

Soft-Coated Wheaten Terriers, on the whole, are healthy and robust dogs but there is a predisposition to the following genetic diseases:

- Renal Dysplasia (RD)
- Protein Losing Enteropathy (PLE)
- Protein Losing Nephropathy (PLN)
- Addison's Disease.

A chart comparing the major features of these diseases is included in this pack (please retain this copy for future use).

Further information on these hereditary diseases can also be found on:

WHI web site: [www.wheatenhealthinitiative.com](http://www.wheatenhealthinitiative.com)

The Club of America web site: [www.scwtca.org](http://www.scwtca.org)

The SCWT Club of GB web site: [www.wheaten.org.uk](http://www.wheaten.org.uk)

Testing is an important factor in the early identification of disease and because the analysis of blood and urine can vary between laboratories, the AHT and WHI have agreed a "Profile" to standardise all analysis processed through the AHT Diagnostic Laboratory Services. The consistency of testing through the AHT will have considerable benefits for the long term monitoring of the hereditary diseases that can affect the breed.

**Samples should be sent to the AHT early in the week to ensure prompt processing. Please use 'guaranteed next day delivery' to ensure the samples arrive as fresh as possible.**

The 'Soft-Coated Wheaten Terrier Profile' is an agreed set of tests, therefore only the top three boxes of the Pathology Profile Form need to be completed and the individual boxes should not be checked.

Please submit the following to the AHT Diagnostic Laboratory Services (address at the top of the pathology profile form).

- Pathology Profile Form (included in this pack)
- 5 ml Serum (clotted blood)
- 5 ml EDTA\_Blood
- Urine sample.

If DNA storage is requested, the owner(s) should supply the following completed forms, which must be enclosed with the DNA sample(s):


- DNA Storage Submission Form - Individual Dog
- DNA Storage Submission Form - Litter of puppies
- Five generation pedigree

Thank you for your co-operation  
Wheaten Health Initiative

## Information for Vets:

# Comparison Chart of Hereditary Diseases

There are four hereditary diseases known to affect the breed.

DISEASE	SYMPTOMS	LABORATORY ABNORMALITIES OFTEN ASSOCIATED WITH THIS DISEASE
<b>Renal Dysplasia (RD)</b>		
Renal dysplasia is a congenital or neonatal disease which causes maldevelopment of the kidneys in utero, or early in life.	Increased water consumption Increased urination (dilute urine) Poor doer, decreased appetite Vomiting Possibly prone to urinary tract infection.	Low urine specific gravity Elevated creatinine and BUN Small kidneys Small, hyperechoic kidneys with or without cysts seen via abdominal ultrasound
<b>Protein Losing Enteropathy (PLE)</b>		
PLE is usually caused by inflammatory bowel disease or lymphangitis/lymphangiectasia. In affected Wheatens there is a stimulation of the immune system in the bowel wall	Vomiting Diarrhoea Weight loss Ascites, oedema, pleural effusion	Note that not all of the laboratory abnormalities are seen in every case. The most important are indicated by an asterisk. Hypoalbuminemia* Hypoglobulinemia* Eosinophilia Hypocholesterolemia Lymphopenia
<b>Protein Losing Nephropathy (PLN)</b>		
PLN is difficult to diagnose. The initial stages of the disease may be mistaken for liver, glandular or other enteric or kidney diseases. Wheatens with PLN may have serious thromboembolic events before renal failure starts, even before there is increased serum creatinine or BUN. An abnormality of the glomeruli usually causes PLN	Listlessness/depression Decreased appetite, vomiting, weight loss Ascites, oedema, pleural effusion Increased water consumption, increased urination (less common) Thromboembolic phenomena and hypertension (less common)	Note that not all of the laboratory abnormalities are seen in every case. The most important are indicated by an asterisk. Hypoalbuminemia* Elevated serum creatinine, BUN (later) Hypercholesterolemia Elevated MA (Microalbuminuria) Elevated urine protein/creatinine ratio*
<b>Addison's Disease</b>		
Addison's disease (Hypoadrenocorticism) is the insufficient production and secretion of hormones (glucocorticoids, mineralocorticoids) by the adrenal gland cortex. The clinical signs are often non-specific and can mimic those of multiple other medical disorders	Listlessness/depression. Decreased appetite, vomiting, diarrhoea, weight loss. Inability to handle stress Sudden collapse Slow heart rate	Decrease in Na/K ratio (Sodium/potassium ratio) Abnormal ACTH stimulation test Elevated serum creatinine, BUN Sometimes, low urine specific gravity
Further information on all of these diseases can also be found in the 'Health Matters' section at: <a href="http://www.wheatenhealthinitiative.com">www.wheatenhealthinitiative.com</a> and the health section of the SCWT Club of America's Web site: <a href="http://www.scwtca.org">www.scwtca.org</a>		<b>WHEATEN HEALTH INITIATIVE</b>

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# Animal Health Trust

Diagnostic Laboratory Services

Lanwades Park, Kentford, Newmarket, Suffolk CB8 7UU  
 Tel: 08700 502426 Fax: 08700 502461 E-mail: diagnostics@aht.org.uk



## Pathology

PLEASE COMPLETE IN BLOCK CAPITALS

(MICROBIOLOGY AND EQUINE VIROLOGY ON REVERSE SIDE)

Veterinary Surgeon \_\_\_\_\_  
 Veterinary Practice \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Tel No. \_\_\_\_\_  
 Fax No. \_\_\_\_\_  
 Results FAX  POST  BOTH

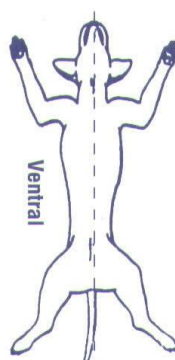
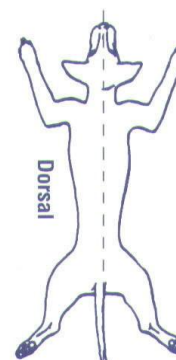
Animal Name \_\_\_\_\_  
 Owner Name \_\_\_\_\_  
 Male  Castrate  Female  Spayed   
 Canine  Feline  Equine   
 Age \_\_\_\_\_ Breed \_\_\_\_\_  
 Date Sampled \_\_\_\_\_  
 Previous sample from this animal Yes  No   
 Lab. Number \_\_\_\_\_

**Sample types submitted**

EDTA  
 Smears  
 Lithium Heparin  
 Serum (clotted blood)  
 Oxalate  
 3.8% Sodium Citrate  
 Urine  
 Tissue (fixed)  
 Aspirate (fixed)

History/Clinical Signs:  
 (attach any additional information)

### Soft Coated Wheaten Terrier Profile

<p><b>HAEMATOLOGY</b></p> <p><input type="checkbox"/> Routine/Complete  <input type="checkbox"/> Basic (no diff)  <input type="checkbox"/> Anaemia Profile  <input type="checkbox"/> Coombs</p> <p><b>COAGULATION</b></p> <p><input type="checkbox"/> Full Clotting Profile (PT, APTT, TCT, basic haem)  <input type="checkbox"/> Clotting Screen (PT, APTT)  <input type="checkbox"/> vWF  <input type="checkbox"/> Factor VIII</p> <p><b>ENDOCRINOLOGY</b></p> <p><input type="checkbox"/> T4 <input type="checkbox"/> TSH  <input type="checkbox"/> Free T4 by ED  <input type="checkbox"/> Cortisol  <input type="checkbox"/> ACTH Stimulation  <input type="checkbox"/> Insulin</p> <p><b>SEROLOGY</b></p> <p><input type="checkbox"/> Toxoplasma  <input type="checkbox"/> Neospora  <input type="checkbox"/> FeLV/FIV  <input type="checkbox"/> FeCoV/FIP</p> <p><b>URINE</b></p> <p><input type="checkbox"/> Culture/Sensitivity  <input type="checkbox"/> Routine Analysis  <input type="checkbox"/> Sediment Only  <input type="checkbox"/> Protein/Creatinine Ratio  <input type="checkbox"/> Cortisol/Creatinine Ratio</p>	<p><b>BIOCHEMISTRY</b></p> <p><input type="checkbox"/> Routine Profile  <input type="checkbox"/> Comprehensive Profile  <input type="checkbox"/> Liver Profile  <input type="checkbox"/> Renal Profile  <input type="checkbox"/> Neurology Referral Profile  <input type="checkbox"/> Equine Weight Loss Profile  <input type="checkbox"/> Equine Muscle Profile  <input type="checkbox"/> Total Protein  <input type="checkbox"/> Albumin  <input type="checkbox"/> Protein Electrophoresis  <input type="checkbox"/> Urea  <input type="checkbox"/> Creatinine  <input type="checkbox"/> AP  <input type="checkbox"/> ALT  <input type="checkbox"/> AST  <input type="checkbox"/> CK  <input type="checkbox"/> GGT  <input type="checkbox"/> Total Bilirubin  <input type="checkbox"/> Bile Acids  <input type="checkbox"/> Bile Acids (pre &amp; post)  <input type="checkbox"/> Cholesterol  <input type="checkbox"/> Triglycerides  <input type="checkbox"/> Glucose (oxalate)  <input type="checkbox"/> Amylase  <input type="checkbox"/> Lipase  <input type="checkbox"/> TLI  <input type="checkbox"/> B12/Folate</p>	<p><input type="checkbox"/> IAP  <input type="checkbox"/> Sodium  <input type="checkbox"/> Potassium  <input type="checkbox"/> Chloride  <input type="checkbox"/> Calcium  <input type="checkbox"/> Phosphate  <input type="checkbox"/> Creatinine Clearance  <input type="checkbox"/> Phenobarbitone  <input type="checkbox"/> Potassium Bromide</p> <p><b>CYTOLOGY</b></p> <p><input type="checkbox"/> Fine-Needle Aspirate*  <input type="checkbox"/> Bone Marrow  <input type="checkbox"/> CSF  <input type="checkbox"/> TW  <input type="checkbox"/> BAL  <input type="checkbox"/> Urine  <input type="checkbox"/> *Fluid  <input type="checkbox"/> Fluid Cell Counts and Protein  <input type="checkbox"/> Culture and Sensitivity  <input type="checkbox"/> Aerobic  <input type="checkbox"/> Anaerobic</p> <p><b>*HISTOLOGY</b></p> <p><input type="checkbox"/> Biopsy  <input type="checkbox"/> PM Tissue  <input type="checkbox"/> Skin Biopsy  <input type="checkbox"/> Large Specimen and Dissection</p>	<p><b>Distribution of Lesions/Sampled Sites</b>        (Number if greater than one sample)</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p><b>Other Tests/Information/*Tissue or Aspirate Sites</b></p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> <p><b>Post Mortem Requirements</b></p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>
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Please tick box if samples **CANNOT** be used for anonymous surveillance

<b>FOR LAB USE:</b>			<b>Office:</b>	
Received by:	Split:		Computer	
	Bact	Histo	Posted/Faxed	
	Clin Path	Viro	1.	
	Cyto		2.	

THE TERMS AND CONDITIONS ON WHICH LABORATORY TESTS ARE CARRIED OUT ARE ISSUED WITH THE CURRENT PRICE LIST. SENDING A SAMPLE TO THE ANIMAL HEALTH TRUST FOR EXAMINATION IS ACCEPTANCE OF THESE TERMS AND CONDITIONS F11a3

## Post Mortem Protocol - Information for Veterinarians:

### Ideally the post mortem needs to take place:

- Within 48 hours of death or euthanasia. ***However, in the case of samples of the intestine, it is important that these are taken as soon as possible after death.***
- The body should be refrigerated (*not frozen*)
- If death occurs over a weekend, please do not send anything to the AHT or RVC until Monday morning.
- Please include a summary of the clinical history leading up to death, or euthanasia, with the body/tissue samples.
- If a whole body post mortem is not necessary, advice regarding the appropriate tissues required for collection can be obtained by contacting one of the pathologists at the AHT or the RVC
- The AHT and the RVC are able to give advice to the referring veterinary surgeon, on a case by case basis, submission of the whole body or parts thereof and the cost of the procedure.

### Who to contact:

The pathology departments at the Animal Health Trust and the Royal Veterinary College have experience of the diagnosis of Protein Losing Enteropathy (PLE), Protein Losing Nephropathy (PLN), Renal Dysplasia (RD) and Addison's disease, including the criteria used to distinguish between a kidney affected by RD and one which is affected by PLN. The AHT has close contact with the RVC and is working with them on various projects.

### Vet Referral Only:

**Animal Health Trust** - Diagnostic Laboratory Services

Lanwades Park  
Kentford  
Newmarket  
Suffolk,  
CB8 7UU

**Telephone:** 01638 552993

**Fax:** 01638 555643

**Email:** [diagnostics@aht.org.uk](mailto:diagnostics@aht.org.uk)

**Web site:** [www.aht.org.uk](http://www.aht.org.uk)

Dr Karin Allenspach med.vet.FVH Dipl ECVIM-CA PhD FHEA MRCVS  
Senior Lecturer Small Animal Internal Medicine  
Head of Medicine Service, Veterinary Clinical Sciences  
The Royal Veterinary College  
Hawkshead Lane  
North Mymms  
Hatfield  
Hertfordshire  
AL9 7TA

**Telephone:** 01707 666333

**Email:** [kallenspach@rvc.ac.uk](mailto:kallenspach@rvc.ac.uk)

**Web site:** [www.rvc.ac.uk](http://www.rvc.ac.uk)

*If Dr Allenspach is not available, please contact:*

Prof. Ken Smith, BVM&S, PhD, FRCPath, MRCVS

Professor of Companion Animal Pathology, Royal Veterinary College

**Telephone:** 01707 666208

**Fax:** 01707 661464

**Email:** [ksmith@rvc.ac.uk](mailto:ksmith@rvc.ac.uk)

**Web site:** [www.rvc.ac.uk](http://www.rvc.ac.uk)

## **Owner Information:**

### **Why is testing important?**

It is possible for a dog to appear healthy even though an underlying disease may be present and the Soft-Coated Wheaten Terrier is no exception to this. The underlying diseases that can affect Wheatens are Renal Dysplasia (RD); Protein Losing Enteropathy (PLE), Protein Losing Nephropathy (PLN) and Addison's disease. A chart comparing the major features of these diseases is provided in this pack.

Owners and breeders can establish the health status of their dogs by monitoring them on an annual basis for signs of illness. This will aid with the early identification of disease, ensuring that treatment can begin promptly and offer the best chance of success.

In addition, if knowledge of the presence of disease is shared with others, it allows for informed breeding decisions to be made in respect of related dogs. You may realise that the testing procedure is only a 'snap-shot' view of the dog's health status at the precise moment that the blood and urine samples are taken and as such cannot give any guarantees with regard to future health. This is not a perfect system but it is the best option available until further advances in understanding these diseases are made.

The benefits of regular screening through the Animal Health Trust are:

- Testing criteria and results are specifically profiled for the Wheaten Terrier.
- The AHT will return the laboratory results to your Vet for his/her interpretation. If your Vet so wishes, he/she can contact the specialists at the AHT for guidance on results that are not within the normal parameters.
- These consistent screening results will be held in one location enabling the AHT researchers' easier access and analysis.
- DNA can be extracted and stored at no extra cost to you; but this will add enormous benefits for future genetic research.
- You have the security of knowing that all procedures will be subject to the same professional confidentiality which exists between Vet and client.
- The AHT will charge a standard fee for their services, to which your vet may add his/her own service charge.
- The researchers' advice is that you carry out the recommended tests on your dog for the first time between the ages of 1 year and 18 months, and repeat them annually thereafter.

If your Wheaten is on medication, check with your vet if this could affect the test.

Please make an appointment with your Vet early in the day, and week, so that blood and urine samples can be sent quickly to the AHT for analysis.

Please inform your breeder and the SCWT Club of Great Britain of your results. If you wish to share this information with WHI, we are always happy to receive it but more importantly please think about sharing this information with other breeders.

Thank you  
Wheaten Health Initiative

## Information about DNA Storage at the Animal Health Trust:

Please consider having DNA from all Wheatens that you own or breed stored at The Animal Health Trust (AHT).

### Why is DNA storage important?

DNA is important for the future of the breed. **ALL** dogs, even those who are never bred from, are **important**. In the future it is hoped that this DNA will enable researchers to find the deleterious (bad) mutations which cause hereditary diseases.

### What will this mean for breeders and owners?

In the future, if breeders have ALL health information, including if a dog has these deleterious mutations, it will enable the breeder to select 'safe' combinations of dogs to breed with that will not produce affected puppies. Over time, the deleterious mutations can be eliminated altogether from the gene pool.

### How often do I have to collect DNA from my dog?

Just once, DNA can be stored indefinitely.

### How do I store the DNA of my Wheaten?

First check that the breeder has not already had your Wheaten's DNA stored.

When you take your dog for its regular health check, a sample of blood for DNA research can be taken and stored free of charge at the AHT, however, your Vet may charge for his/her services.

AHT Form; 'DNA Storage - Individual Dog' is enclosed with this pack, please complete this and give it to your Vet at the time of sampling. The sample should be accompanied by a \*5 generation pedigree of your dog.

### How do I store my litter's DNA?

DNA from family groups will be vital for future research and many breeders have DNA from each of the puppies in their litters stored, prior to the pups leaving for their new homes.

When you take your litter or new puppy for blood testing, it will only require a basic kidney function test (i.e. **Creatinine, Urea and Phosphate**). *A puppy's body system is not fully developed until 12-15 months of age. Therefore, at this stage of its life, it will not require a comprehensive blood test, and it is possible that spurious results could occur.*

A small amount of extra blood can be taken at the same time and sent to the AHT.

AHT Form; 'DNA Storage - Litter' is enclosed with this pack, please complete this and give it to your Vet at the time of sampling. The sample(s) should be accompanied by a \*5 generation pedigree of your litter with all information, i.e. names/ID etc., clearly listed.

**Please inform the AHT of any illnesses that your dog(s)/Puppy(s) has, and keep them updated of any major health changes after the DNA blood sample has been submitted.**

### Who should I inform if I store DNA?

Please inform your breeder and the SCWT Club of GB if you have your Wheatens DNA stored at the AHT.

### Please give your Vet:

1. The relevant DNA Blood Sample Submission Form
2. A 5 generation pedigree of your dog or litter. (\*WHI can supply a pedigree upon request. WHI will require your dog's Kennel Club name and date of birth).

If you would like acknowledgement of the receipt of the DNA sample, provide an email address, as confirmation is only sent by this method.



Animal *Health* Trust  
the science behind animal welfare

**BLOOD SAMPLE SUBMISSION FOR SOFT-COATED WHEATEN TERRIER RESEARCH**  
**Individual Dog**

**KC Registered Name:** .....

**KC Registration Number:** .....

**Owner's Name (Block Letters):** .....

**Address:** .....

.....

.....

**Postcode:** ..... **Telephone No:**

.....

**Acknowledgement of receipt of the DNA sample can be provided by email only.**

**Email Address:** .....

**IMPORTANT**

**Please preserve 5ml blood sample in an EDTA tube**

The AHT appreciates blood sampling is an invasive procedure so suggest that samples be collected as part of a general health check, or on any other occasion when blood is being drawn.

Please enclose a 5-generation pedigree, and copies of all health certificates/information available. This information is necessary for the sample to be used for research purposes. It is also important the AHT is informed of any significant health changes that occur after the sample has been submitted.

Pedigree and health certificates/information can be sent to Dr Cathryn Mellersh at: The Animal Health Trust, Lanwades Park, Kentford, Newmarket, Suffolk CB8 7UU if they are not available at the time of sampling.

***I hereby declare that the samples submitted for testing are from the dog described above. I accept that the blood samples become the property of the Animal Health Trust and may be used in future research programmes.***

Signature ..... Date.....



# Animal *Health* Trust

*the science behind animal welfare*

## **BLOOD SAMPLE SUBMISSION FOR LITTER OF SOFT COATED WHEATEN TERRIERS**

If you have not yet allocated an approved KC name against your puppies, identify each with an ID of your choice. Please keep a record and when your KC registration names/numbers arrive please forward to Dr Catherine Mellersh, indicating the ID and name against each puppy.

**Litter Date of Birth:** .....

**Number in Litter:** .....

KC Registered name/ID: .....

Sex: Male / Female KC Registration Number: .....

KC Registered name/ID: .....

Sex: Male / Female KC Registration Number: .....

KC Registered name/ID: .....

Sex: Male / Female KC Registration Number: .....

KC Registered name/ID: .....

Sex: Male / Female KC Registration Number: .....

KC Registered name/ID: .....

Sex: Male / Female KC Registration Number: .....

KC Registered name/ID: .....

Sex: Male / Female KC Registration Number: .....

KC Registered name/ID: .....

Sex: Male / Female KC Registration Number: .....

KC Registered name/ID: .....

Sex: Male / Female KC Registration Number: .....

KC Registered name of Sire: .....

KC Registration:..... and / or Stud Book no:.....

KC Registered Name of Dam: .....

KC Registration:..... and / or Stud Book no:.....

Breeder's Name: .....

Address:.....

.....

.....

Postcode: ..... Telephone No: .....

**Acknowledgement of receipt of the DNA sample can be provided by email.**

Email Address: .....

### **IMPORTANT**

#### **Please preserve blood sample in an EDTA tube**

The AHT appreciates blood sampling is an invasive procedure so suggest that samples be collected as part of a general health check, or on any other occasion when blood is being drawn.

Please enclose a 5-generation pedigree, and copies of all health certificates available. This information is necessary for the sample to be used for research purposes. It is also important the AHT is informed of any significant health changes that occur after the sample has been submitted.

Pedigree and health certificates/information can be sent to Dr Cathryn Mellersh at: The Animal Health Trust, Lanwades Park, Kentford, Newmarket, Suffolk CB8 7UU if they are not available at the time of sampling.

***I hereby declare that the samples submitted for testing are from the dog described above. I accept that the blood samples become the property of the Animal Health Trust and may be used in future research programmes.***

Signature ..... Date .....

## Collecting a urine sample:



Practice the collection method so that you train your Wheaten to feel comfortable with urine collection. Do not forget to tell the dog how clever he/she is and reward when you achieve a good collection. Make it a fun game!

Clear away the hair around the penis and/or vagina and wipe clean prior to collection. Use a clean plastic pot (for males) or shallow dish (for females), to collect your sample and have ready a clean container, clearly labelled with the dog's identity on it. Pour your urine sample into this container and give this to your vet.

It is best if the dog has started to wee (mid stream), then it usually continues. If the dog hasn't started to wee then it will probably jump up and the moment will have been lost.

Make your Vet appointment as early as possible so that the sample is fresh, and keep the sample out of direct sunlight and in a cool place (not a refrigerator as this may create crystals in the sample).

Urine sample: Preferably 8 hours after food, second wee of day, mid stream, **at least 2ml** volume is required.


### **Do not test:**

- A bitch in season
- A dog with a urine infection
- If your Wheaten is on medication, discuss this with your Vet, to check the medication does not affect the sample

*This chart is not intended to alarm you or to suggest that your Soft-Coated Wheaten Terrier has inherited any of the diseases it describes. It is purely to provide information for your Vet and yourself.*

## Comparison Chart of Hereditary Diseases

There are four hereditary diseases known to affect the breed.

<b>DISEASE</b>	<b>SYMPTOMS</b>	<b>LABORATORY ABNORMALITIES OFTEN ASSOCIATED WITH THIS DISEASE</b>
<b>Renal Dysplasia (RD)</b>		
Renal dysplasia is a congenital or neonatal disease which causes maldevelopment of the kidneys in utero, or early in life.	Increased water consumption Increased urination (dilute urine) Poor doer, decreased appetite Vomiting Possibly prone to urinary tract infection.	Low urine specific gravity Elevated creatinine and BUN Small kidneys Small, hyperechoic kidneys with or without cysts seen via abdominal ultrasound
<b>Protein Losing Enteropathy (PLE)</b>		
PLE is usually caused by inflammatory bowel disease or lymphangitis/lymphangiectasia. In affected Wheatens there is a stimulation of the immune system in the bowel wall	Vomiting Diarrhoea Weight loss Ascites, oedema, pleural effusion	Note that not all of the laboratory abnormalities are seen in every case. The most important are indicated by an asterisk. Hypoalbuminemia* Hypoglobulinemia* Eosinophilia Hypocholesterolemia Lymphopenia
<b>Protein Losing Nephropathy (PLN)</b>		
PLN is difficult to diagnose. The initial stages of the disease may be mistaken for liver, glandular or other enteric or kidney diseases. Wheatens with PLN may have serious thromboembolic events before renal failure starts, even before there is increased serum creatinine or BUN. An abnormality of the glomeruli usually causes PLN	Listlessness/depression Decreased appetite, vomiting, weight loss Ascites, oedema, pleural effusion Increased water consumption, increased urination (less common) Thromboembolic phenomena and hypertension (less common)	Note that not all of the laboratory abnormalities are seen in every case. The most important are indicated by an asterisk. Hypoalbuminemia* Elevated serum creatinine, BUN (later) Hypercholesterolemia Elevated MA (Microalbuminuria) Elevated urine protein/creatinine ratio*
<b>Addison's Disease</b>		
Addison's disease (Hypoadrenocorticism) is the insufficient production and secretion of hormones (glucocorticoids, mineralocorticoids) by the adrenal gland cortex. The clinical signs are often non-specific and can mimic those of multiple other medical disorders	Listlessness/depression. Decreased appetite, vomiting, diarrhoea, weight loss. Inability to handle stress Sudden collapse Slow heart rate	Decrease in Na/K ratio (Sodium/potassium ratio) Abnormal ACTH stimulation test Elevated serum creatinine, BUN Sometimes, low urine specific gravity
Further information on all of these diseases can also be found in the 'Health Matters' section at: <a href="http://www.wheatenhealthinitiative.com">www.wheatenhealthinitiative.com</a> and the health section of the SCWT Club of America's Web site: <a href="http://www.scwtca.org">www.scwtca.org</a>		<b>WHEATEN HEALTH INITIATIVE</b>

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## **Post Mortem Protocol:**

*Dear Owner*

*Nobody likes to think of the time when we might lose our Wheaten friend and companion. The moment we do lose them is very emotional and sensitive for us and a time when the pain of grief can cloud our better judgement.*

*At a time like this, suggestions of a post mortem are almost unthinkable, but the last loving act could be to allow your Wheaten to provide valuable medical information that may benefit the breed in future; the health of every Wheaten is important, even if it has not been bred from.*

*Of course, this is a difficult task to take on board so soon after death, but it may help and reassure you that it may not be necessary for a 'full body' post mortem to be carried out. Often, all that may be required, unless there are serious concerns over the cause of death, is to take a sample, using keyhole surgery, from the kidney and/or intestine.*

*If you would like your Wheaten to make this valuable contribution to wheaten health, it may help to discuss the possibility with your Veterinary Practice so that they can be aware of your wishes well in advance so he/she can discretely carry out the necessary procedures on your behalf, when the time comes.*

*If it is suspected that your dog has died of a hereditary disease, please inform your breeder, and the SCWT Club of GB.*

*Further details about the PM process are given below.*

*Thank you for taking the time to consider this matter.*

*Regards  
Wheaten Health Initiative*

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### **Information for Owners and Veterinarians:**

The request for pathological examination must come directly from your veterinary surgeon, and the post mortem report will also go back to the referring veterinarian, who would then relay the report and results to you.

Researchers at the Royal Veterinary College (RVC) and the Animal Health Trust (AHT) work closely together and have experience performing Post Mortem on the Soft-Coated Wheaten Terrier. Both the RVC and the AHT will charge for their services, as will your Vet. Only your Vet can ascertain the cost of these procedures, and the amount will also depend on whether it is a whole body or tissue samples which are required.

The SCWT Club of GB has a health fund and may help with the cost of the post mortem. Contact details for the Club are at the back of this Handbook and also available on our web site.

DNA will also be collected on PM (if it has not already been previously stored).

## **Contacts & References:**

Wheaten Health Initiative – [www.wheatenhealthinitiative.com](http://www.wheatenhealthinitiative.com)

E-mail: [wheatenhealth@aol.com](mailto:wheatenhealth@aol.com)

### **WHI Publications:**

The Soft-Coated Wheaten Terrier 'Health Handbook' can be downloaded from our web site:  
[www.wheatenhealthinitiative.com](http://www.wheatenhealthinitiative.com)

Grooming Tips for Your Soft-Coated Wheaten Terrier & Identifying A Soft-Coated Wheaten Terrier are both available from: Barbara Penney - [penney@btinternet.com](mailto:penney@btinternet.com)

SCWT Club of America – [www.scwtca.org](http://www.scwtca.org)

SCWT Club of GB – [www.wheaten.org.uk](http://www.wheaten.org.uk)  
Secretary of the SCWT Club of GB: Judy Creswick

### **UK Vet Referral only:**

**Animal Health Trust** - Diagnostic Laboratory Services

Lanwades Park

Kentford

Newmarket

Suffolk, CB8 7UU

**Telephone:** 01638 552993                      Fax: 01638 555643

Diagnostic Laboratory Services

Email: [diagnostics@aht.org.uk](mailto:diagnostics@aht.org.uk)                      Web site: [www.aht.org.uk](http://www.aht.org.uk)

### **UK Key Researcher - Vet referral only:**

Dr Karin Allenspach med.vet.FVH Dipl ECVIM-CA PhD FHEA MRCVS

Senior Lecturer Small Animal Internal Medicine

Head of Medicine Service, Veterinary Clinical Sciences

The Royal Veterinary College

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North Mymms

Hatfield

Hertfordshire AL9 7TA

**Telephone:** 01707 666366

Email: [kallenspach@rvc.ac.uk](mailto:kallenspach@rvc.ac.uk)                      Web site: [www.rvc.ac.uk](http://www.rvc.ac.uk)

*If Dr Allenspach is not available, please contact:*

Prof. Ken Smith, BVM&S, PhD, FRCPath, MRCVS

Professor of Companion Animal Pathology

The Royal Veterinary College, Diagnostic Laboratory Services

Hawkshead Lane

North Mymms

Hatfield

Hertfordshire AL9 7TA

**Telephone:** 01707 666208                      Fax: 01707 661464

Web site: [www.rvc.ac.uk](http://www.rvc.ac.uk)

### **USA Key Researcher - Vet referral only:**

Dr Meryl P Littman, VDM, DACVIM

Associate Professor of Medicine – C-E

University of Pennsylvania, School of Veterinary Medicine

3900 Delancey Street, Philadelphia, PA 19104-6010

**Telephone:** (215) 898 9288                      Fax: (215) 573 6050 (include cover sheet)

Email: [merylitt@vet\\_upenn.edu](mailto:merylitt@vet_upenn.edu)

### **USA Key Researcher - Vet referral only:**

Dr Shelly Vaden, DVM, PhD Diplomate ACVIM

Professor, Internal Medicine

North Carolina State University, College of Veterinary Medicine

4700 Hillsborough Street, Raleigh, NC 27606

**Telephone:** (919) 513 6235                      Fax: (919) 513 6336 (include cover sheet)

Email: [shelly\\_vaden@ncsu.edu](mailto:shelly_vaden@ncsu.edu)