



Christmas Special Edition

WHO ARE WE?

Good to see you here! We are - The Campus-, just a bunch of regular, passionate and ambitious veterinary medicine students from Romania, France, Luxemburg in USAMVB, led by a wonderful and warm hearted veterinary doctor. p. 02

DEALING WITH PNEUMOTHORAX IN EMERGENCY

3 am in the night shift, you are called in the Emergency Room where you find a dog who just got hit by a car. p. 06

CHRISTMAS TIME AND PETS

It's most wonderful time of the year. But is it also for our pets? But to help you keep the magic alive, let us give you some tips to celebrate safely the Holidays with your pet. ? p. 11

THE



CAMPUS

we could be heroes!

LIFE AFTER POLYTRAUMA

the story of a real survivor

by *Andrei Diaconescu*

Accidentele rutiere în care sunt implicate animale au devenit o problemă majoră în contextul siguranței în trafic. Aceste evenimente sunt din ce în ce mai frecvente și, din nefericire, numărul lor se dublează anual. Statisticile mondiale raportează un număr de aproximativ 194 milioane de păsări și 29 milioane de mamifere implicate în accidente rutiere. Aceste accidente rutiere în care sunt implicate animalele, cauzează răni grave sau chiar decesul șoferilor, generând costuri socio-economice importante.

De exemplu, în Statele Unite ale Americii, un număr de 1-2 milioane de accidente rutiere anual sunt cauzate de căprioare, soldate cu 200 de decese umane și prejudicii materiale de 8.4 milioane de dolari.



#aici salvăm vieți
pentru că putem

Într-o situație asemănătoare s-a aflat și Tomi, o felină din rasa Europeană care în dimineața zilei de 19 iulie 2021 a fost implicată într-un accident rutier. A fost adus la Spitalul Universitar de Urgență "Profesor Dr. Alin Bîrțoiu" și examenul clinic a evidențiat politraumatismele cauzate de accidentul rutier, multiple plăgi cutanate mușcate, rănii auriculară și microsporie.

Examenul neurologic a evidențiat statusul mental depresat, capul întors pe partea stângă (pleurostotonus), anizocorie, răspunsul la amenințare absent, reflexul pupilar cromatic diminuat și nistagmus rotator. Diagnosticul stabilit în urma examenului neurologic: Sindrom vestibular central și periferic cu afectarea nervului optic și oculomotor, traumatism cranio-facial (Modified Glasgow Coma Scale: 16). Tratamentul instituit de urgență a permis evaluarea radiografică a pacientului Tomi la 24 de ore de la accident.

CONTINUED TO P.05



WHO ARE WE?

by Mara-Catalina Busca & Miruna Beda

Good to see you here! We are -The Campus-, just a bunch of regular, passionate and ambitious veterinary medicine students from Romania, France, Luxemburg in USAMVB, led by a wonderful and warm hearted veterinary doctor.

what is our aim?

To entertain, inform and de-stress our fellow colleagues on a monthly basis, in the form of thoroughly researched articles and inspiring essays.

Even in following issues you will see many surprises, we are pretty sure that you will enjoy the balance of life-style articles with veterinary medicine articles.

We will inform you about some complicated cases as well as survival stories of cats and dogs after trauma which were treated in our Faculty Emergency Hospital and many more information. But, before jumping to serious subjects, we decided to introduce ourselves. So if you are ready, let's start:



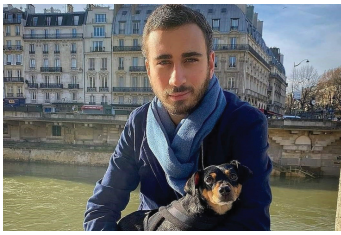
Hello! My name is Miruna Beda, I'm a Sagittarius and my hometown is a small place in Romania called Focsani. Ever since I was little, on any occasion a family friend would ask me "Don't you want a brother or a sister?" I would simply reply "Maybe a cat or a dog", leaving them stunned. To them, these two had nothing in common with what they asked; animals can't possibly replace a family member. But in my heart, the cats I've shared my home with along the years couldn't be more precious.

And, following along on this path of animal loving, came lots of health issues I desperately wanted to know how to solve. I still have a long way to go, but after all the pets I've had I realized helping animals is what I really want to do in life. I am greatly interested in working with exotic animals, such as snakes, big felines and sugar gliders (you can blame Dr. K's Nat Geo Wild show for that). My mother has a small dog shelter where I also used to help when I was younger, so I guess you could say I've inherited this passion genetically. Other than being on my way to becoming a full blown cat lady, I'm very much into reading, figure skating, cinematography and East-Asian culture.

Hi! My name is Mara-Catalina Busca and I live in a wonderful small town called Focsani, someplace lost on the map of Romania. I always had a fascinating relationship with animals from a young age and I knew I wanted to have a career that works closely with animals. Since the age of 15 I was part of a lot of beautiful projects with a team from Germany that provided everything that was needed to a public shelter from my town. So basically we fought daily for every single animal from the shelter to have a better home and a healthy life. I've always kept saying that a house is not a home without a little paw friend and that along the years led me to adopt 8 cats and 5 dogs.



I'm a Pisces and so I adapt effortlessly in any surroundings. I'm empathetic and I always like to be sure that people around me are happy. I also enjoy spending time in nature, traveling, music, gym beside living an active and healthy lifestyle. So that's me... A compassionate person who constantly wants to learn and grow. I have so many beautiful things to offer to this fluffy world!



Hello, I am Bryan Meguira, from France and Israël.

I used to be a combat soldier in the Israël defense force, but I've always wanted to become a veterinarian, since animals have been my passion ever since I was born.

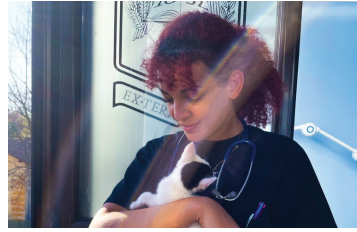
After serving in the army, I decided that firstly I want to do something else related to my passion: to learn dog's behavior. Therefore, I became a dog trainer after studying for 1 year in the Marker Training Academy of Tel Aviv.

I realized that if health is important, behavior is not less essential to understand as Vets.

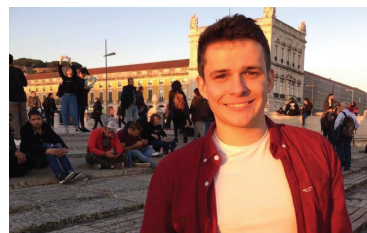
After my graduation from Marker Training, I combined my passions for animal behavior and army by training explosive sniffing dogs.

Consequently, I was sent to Africa in order to create a K9 unit. Following this, I decided that the time had come to start realizing my dream, so I arrived in Bucharest, where veterinary medicine, and especially surgery, are fascinating me more and more each day.

I'm Claudia Schimenti, Gemini, 25 years old. I'm so much of a cat lady that I even came with my 2 cats from France and they take the plane with me regularly.



I've been volunteering at VisulLuanei since my first year here because I also really like wild animals. I am vegan, I love to batch cook (I prepare my food on Sundays for the entire week coming), I enjoy digital drawing and video games a lot, I am laughing and smiling most of the time because I'm easily entertained (even very stupid jokes make me laugh in general, but as they say, "A day without laughter is a day wasted"), I enjoy traveling and I am a fan of nature as I'm from the countryside.



Yann Daniel, I am a French vet student in my 5th year of studying. I live in France, close to Paris. I am interested about surgery and especially orthopedics. I like snowboarding and surfing. I am also keen on reptiles and I'm a Libra.

Heei! My name is Maria Nestian, but you can call me Mia.



I am from Bucharest, Romania and my zodiac sign is Leo. I love drinking and preparing coffee, I also spend some of my free time in the gym. I teach Chemistry and Biology for high school students and sometimes I make podcasts with my favourite Romanian bands.

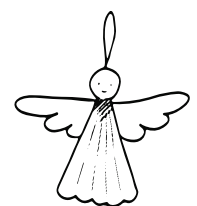


Hi, I'm Chloe Loir, and I'm a Gemini. I'm 24 years old, from Normandy and now living in Luxembourg. Love the countryside, I'm looking forward to working with horses in the future as a Vet; I'm also interested in orthopedics but I would be open minded to try all medical specialties. I love spending time with my family and friends, hiking, discovering new places and cultures around the world and horse riding are some of my hobbies, I'm also a food lover! Lately, I've been more interested in yoga, meditation and overall taking more time for myself.

My name is Mathilde Breton and I'm a Sagittarius. I have 3 brothers, ADHD, a lazy cat and a poodle.



I'm having a hard time choosing only one main interest as I easily get hooked on stuff and just as easily get bored too. So I like to try many, many things and to switch often. Basically, I thrive on seeing results so subjects like hygiene or food control bore me quickly, as they're based on analysis. But in my perspective, veterinary medicine mostly consists of surgery, behavioral sciences in small animals, nutrition and other subjects like that. The only project I never dropped is my dog. He is just the cutest. I love glacier hiking or just hiking in general. I do yoga, meditate, run, play tennis etc. I can also paint quite well. During the pandemic I assembled a completely black puzzle, an insane idea but I finished it in 3 weeks. Not really a life achievement, but I feel it says a lot about my determination and the type of person I am.





Cheers! My name is Andrei Diaconescu and I'm a Sagittarius too. I'm optimistic, hilarious, honest, fun and I have a lot of friends because

Heey, I'm Ciprian and I'm a Leo. Characteristic of my sign, my moments of modesty are pretty few and far between, but that is not necessarily a bad thing, as it gives me the courage to expose myself to different situations. However, I did realize in time that it's not good to always throw myself out there and that sometimes it's good to stay put. I'm a fire sign, expansive, proud of myself and always trying to do a passionate and good job. I'm always at extremes but I love making the people around me laugh and feel happy.



I like spending time with them. I'm born and raised in Bucharest, Romania. I like guitars, video games and music festivals. I've been surrounded by animals my whole life, from helping out my grandparents in their small animal farm to spending time as a kid in my parents' clinics, so veterinary medicine always seemed to be the right path to take.

LIFE BETWEEN PARIS & BUCHAREST

by Yann Daniel

Je peux dire que j'ai une « double vie ». En effet je vis dans deux pays séparés par 2300km. Je suis un étudiant français qui vit à Rambouillet (une petite ville proche de Paris). J'ai grandi là-bas jusqu'à mes 21 ans et c'est à cet endroit que j'ai ma famille et mes amis. A 21 ans j'ai décidé de poursuivre mon rêve de devenir vétérinaire et c'est pourquoi je suis parti à Bucarest. Ici j'ai ma deuxième vie. Je me suis fait des amis à la faculté avec qui je partage beaucoup. J'aime ma vie ici car je poursuis mon rêve en apprenant un maximum à la fac et en même temps je profite des week-ends pour faire la fête ou partir en voyage. Nous avons essayé de visiter un maximum la Roumanie en profitant des montagnes de Sinaia, Busteni, Brasov, Sibiu mais aussi le delta du Danube et sa réserve ornithologique.

Puis quand les vacances arrivent, je retourne dans mon pays d'origine et je redécouvre le goût du croissant et du fromage qui nous manque parfois à Bucarest.

Nous sommes maintenant en décembre et il va être temps pour nous de rentrer en France pour profiter de nos familles et nos proches pendant les fêtes. Derniers rangements de l'appartement, des détails à prendre dans la valise pour rentrer et nous sommes prêts à partir. C'est aussi l'occasion pour nous de faire des stages vétérinaires en France.

Voilà ce que représente ma « double vie ».



...and our Dr. Seralp Uzun is beloved chief coordinator, Originating from Turkey, he is a dedicated doctor and professor, true to his Sagittarius sign. His main interests are in trauma and emergency surgeries, as he is a commission

member of EVECCS (European Veterinary Emergency and Critical Care Society). Among his many accomplishments, we can list that he published the first book on emergency veterinary medicine in Turkey, titled "Guide to Emergency Procedures and Critical Care for Veterinary Medicine" and that he founded and was the first president of the Turkish Veterinary and Critical Care Association. Other than being an awesome doctor, he is also a fan of playing basketball and tries his best to maintain an active lifestyle.

LIFE AFTER POLYTRAUMA

continuing from page 1

Diagnostic radiografic: Luxație temporo-mandibulară stângă și fractură de simfiză mandibulară. Edemul submandibular impresionant nu a fost un impediment pentru montarea tubului esofagian de hrănire. La cinci zile de la traumatism, în data de 23 iulie 2021, starea lui Tomi a permis efectuarea intervenției chirurgicale pentru fractura temporo-mandibulară stângă și fractura de simfiză mandibulară.



Evoluția post-operatorie a lui Tomi a fost atent monitorizată în secția ATI. Sub tratamentul sistemic cu antibiotic și analgezic, completat cu hrănirea artificială cu ajutorul tubului de hrănire, evoluția lui Tomi a fost favorabilă după intervenția chirurgicală.

La patru zile de la operație Tomi are apetit prezent și începe să mănânce singur, astfel că se decide îndepărtarea tubului de hrănire.

La 21 zile de la traumatismul rutier, echipa de medici care l-a îngrijit pe Tomi, a decis externarea acestuia. Atenția, dragostea și răbdarea proprietarilor au completat misiunea medicilor incluzându-l astfel pe Tomi în "Familia Învingătorilor".

Povestea lui Tomi a avut un final fericit. Din nefericire există mulți indivizi din regnul animal care plătesc cu viața atunci când sunt implicați în accidente rutiere.

Cum ai putea TU, în calitate de șofer, să eviți un accident rutier cauzat de un animal?

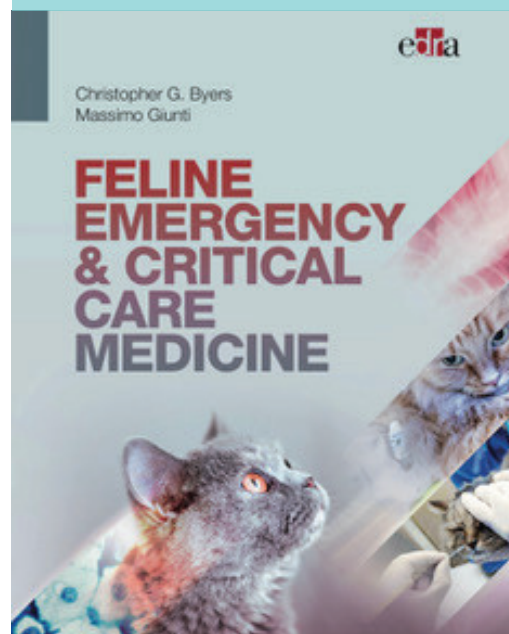
Potrivit PETA (People for the Ethical Treatment of Animals) răspunsul este simplu: "Condușul preventiv, cu adaptarea vitezei noaptea, folosirea semnalului sonor atunci când un animal pare că intenționează să intre pe carosabil și folosirea semnalelor luminoase în vederea întreruperii efectului hipnotizant al farurilor pentru animale, poate ajuta".

hit the breaks for them too!

BOOK OF THE MONTH

"Here is a new book published by Dr.C.Byers"

"Successfully managing emergency patients and those with critical illness requires knowledge and skills often not adequately covered in veterinary school. Through this book, the Editors and Authors have created a comprehensive resource to use to grasp the issues and scope of problems inevitably encountered in clinical practice. The book's format is designed to allow readers to digest the broad range of topics inherent to feline emergency and critical care medicine. Each chapter begins with a Summary Section that details practical points about pathophysiology, clinical signs, diagnosis, and treatment, including algorithms that attempt to simplify a problem and post the reader in the right direction. Each chapter also has a Comprehensive Section that dives deeper into the topic at hand to satisfy those who appreciate detailed discussions about pathophysiology, diagnostic investigations, and evidence-based therapies. The book has 10 sections and 100 chapters with accompanying color images and videos."



DEALING WITH PNEUMOTHORAX IN EMERGENCY

by Claudia Schimenti & Bryan Meguire

It is 3 a.m. in the morning and you are a vet on call at your hospital. You just finished a consultation with a tomcat brought by his owner because several masses suddenly appeared on its belly, and you had to spend 20 minutes convincing him that yes, male cats do have nipples. All you can think about is your bed while drinking your third coffee of the night. Suddenly, you are called in the Emergency Room where you find a dog who just got hit by a car. He shows evident signs of tachypnea, open-mouth and abdominal breathing, cyanosis and he stays with an extended neck and the elbows abducted. It makes you think about 2 things: what if the collision led to a traumatic pneumothorax? And why didn't you actually finished reading the article treating this subject in "The Campus" the other day?

Let's avoid that second question if you ever had to be in such a situation by reviewing together the various types of pneumothoraxes and how to deal with it in ER

General anatomy of the thoracic cavity

First of all, in order to understand the pathology, it is important to remember the normal aspect of the lungs, and their general structure within the thoracic cavity.

Each lung is covered by an adhering serous membrane called the visceral pleura, which is in continuity with the parietal pleura lining the mediastinum, diaphragm, and thoracic wall. Those two layers are separated by a small amount of serous fluid, that will ease the movement of the lungs against the thoracic wall as well as of each lung against each other. The potential space between the lungs and the thoracic wall is called the pleural space. The mediastinum is the space between each half of the thoracic cavity, called hemithorax, and is enclosed by the mediastinal pleura.

In contrast to the pleural cavity, the mediastinum is not a closed cavity as it is in continuity with the fascial planes of the neck cranially, and with the retroperitoneal space caudally.

The heart, the trachea, esophagus, and thymus are all situated within the mediastinum, which is very thin in dogs and cats. This feature may explain its rupture in the case of a pneumothorax, that, in consequence, will have the tendency to be bilateral in those species. During the active process that is the inhalation, the pleural pressure decreases as the thoracic cavity enlarges, and the respiratory muscles work to stretch the lungs and allow the airflow. On the contrary, the expiration is a passive mechanism where the lungs get back to their resting position without involving the muscles contraction.

What happens during pneumothorax?

As you understood, the lungs and the thoracic wall have a strong connection. When air penetrates the pleural cavity, this connection is lost, and the lungs cannot increase in volume while the thoracic wall expands. The consequences will be observed both in the respiratory and the cardiovascular systems. At the beginning, when a small amount of air will be found in the pleural cavity, the body will compensate by tachypnea (an acceleration of the respiration rate) that will provoke a reduction of the arterial blood carbon dioxide, and an augmentation of the blood pH. While the air accumulates in the cavity, hyperventilation will occur, and the amount of air in the lungs will be too high to maintain an adequate ventilation. At one point, the air within the pleural cavity will reach its peak amount when the thoracic wall will be expanded to its maximum. Therefore, the respiratory muscles will not be able to exert their action during the active inhalation, and the respiration may stop.

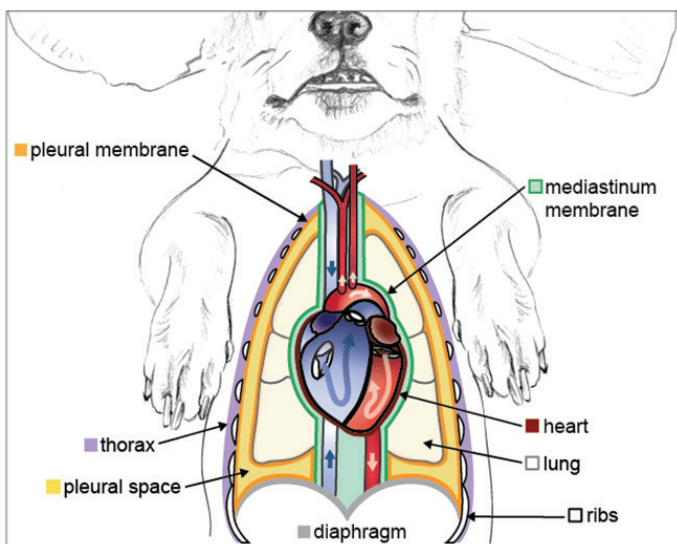


Illustration of the thoracic cavity and its organs. Credit: Veterinary Information Network.

<https://www.marvistavet.com/pyothorax.pml>.

The consequence of a pneumothorax in the cardiovascular system will be mainly represented by its thoracic pump action, which delivers blood to the thoracic cavity as the pressure in the pleural space assists the progression of blood to the heart. Pneumothorax could then, if not treated soon enough, lead to a cardiac failure.

The pneumothorax knows two main etiologies: traumatic and spontaneous. In the case of a traumatic pneumothorax, two situations are observed: open pneumothorax when the thoracic wall is damaged and closed pneumothorax when the thoracic wall remains intact. The spontaneous pneumothorax also has two variations: primary pneumothorax of idiopathic origin, and secondary pneumothorax underlying a preexistent pulmonary disease.

Symptoms:

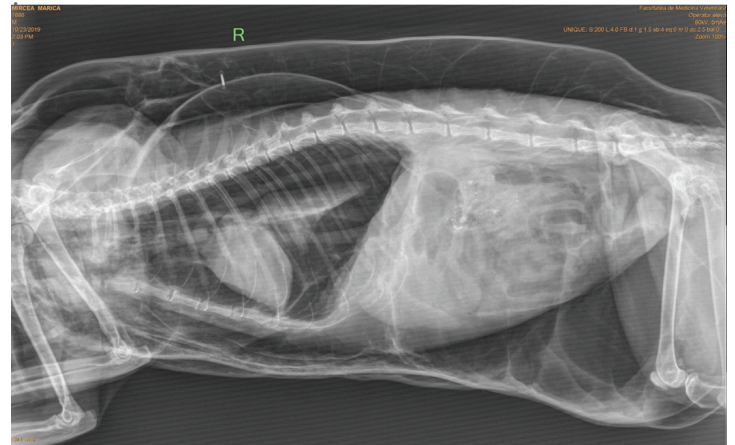
No matter the type, the pneumothorax has common symptoms that can help the practitioner orientating his diagnosis, and to choose the according additional exams:

- Increased respiratory rate;
 - Rapid, shallow breathing;
 - Orthopneic postures (the dog stretches the neck and keeps the elbows back, to open the airways and thus facilitate inspiration);
 - Cough;
 - Prominent chest;
 - Cyanosis due to poor oxygenation;
- These symptoms should also alert the owner that something wrong is going on with their animal, and that it is time to consult a specialist.

Traumatic pneumothorax:

According to the literature, the traumatic etiology is the most commonly observed in dogs, and the most observed thoracic injury (present in about 50% of all thoracic trauma reported). This fact underlines the importance for us, as clinicians or students, to be aware of the causes, consequences, and treatment of this condition. As we said before, traumatic pneumothorax can be open or closed, depending of the presence of a wound penetrating the thorax, or the communication between the pleural space and the environment. In the case of an open pneumothorax, air enters and often exits from the pleural space during each respiration. However, we are talking about a closed pneumothorax when after a trauma air penetrates the pleural space but without causing damages to the thoracic wall itself.

The most common etiologies are bites, car accidents, falling from a high floor, or iatrogenic causes such as a violent thoracostomy tube removal, or a thoracic wall manipulation for example.



X-ray of Traumatic open pneumothorax with emphysema caused by feline high rise syndrome.

Credit: USAMVB Emergency Hospital

Spontaneous pneumothorax:

We can define the spontaneous pneumothorax as the accumulation of air in the pleural cavity without traumatic nor iatrogenic origin. The spontaneous pneumothorax is a closed one, so like we said before there is no direct communication between the pleural cavity and the exterior environment. The air can come from the trachea, the bronchi or the esophagus, but the most common origin is the lung parenchyma. A spontaneous pneumothorax can be either primary or secondary. The main difference between those two is the clinical history: a primary pneumothorax appears with an unknown etiology, in apparently healthy animals without previously known pulmonary pathology, while the secondary pneumothorax appears, as its name suggests, secondary to a preexistent condition. We can observe a wide range of etiologies causing a spontaneous secondary pneumothorax, such as a pulmonary neoplasia, foreign bodies, a tapeworm infestation, emphysema, a bacterial or viral pneumonia, or pulmonary abscesses. Meanwhile, a primary pneumothorax is more likely to appear after pulmonary blebs or bullae, a type of blister-like lesions full of air that appear on the lung. These are prone to explode and release their content within the pleural space, with the consequence we know.

Tension pneumothorax:

It is also important to talk about the tension pneumothorax that is likely to appear in all the above-mentioned cases, with a lesser occurrence in open pneumothorax. Such a situation is described when there is an accumulation of air within the thoracic cavity, with a constant progression in every breathing

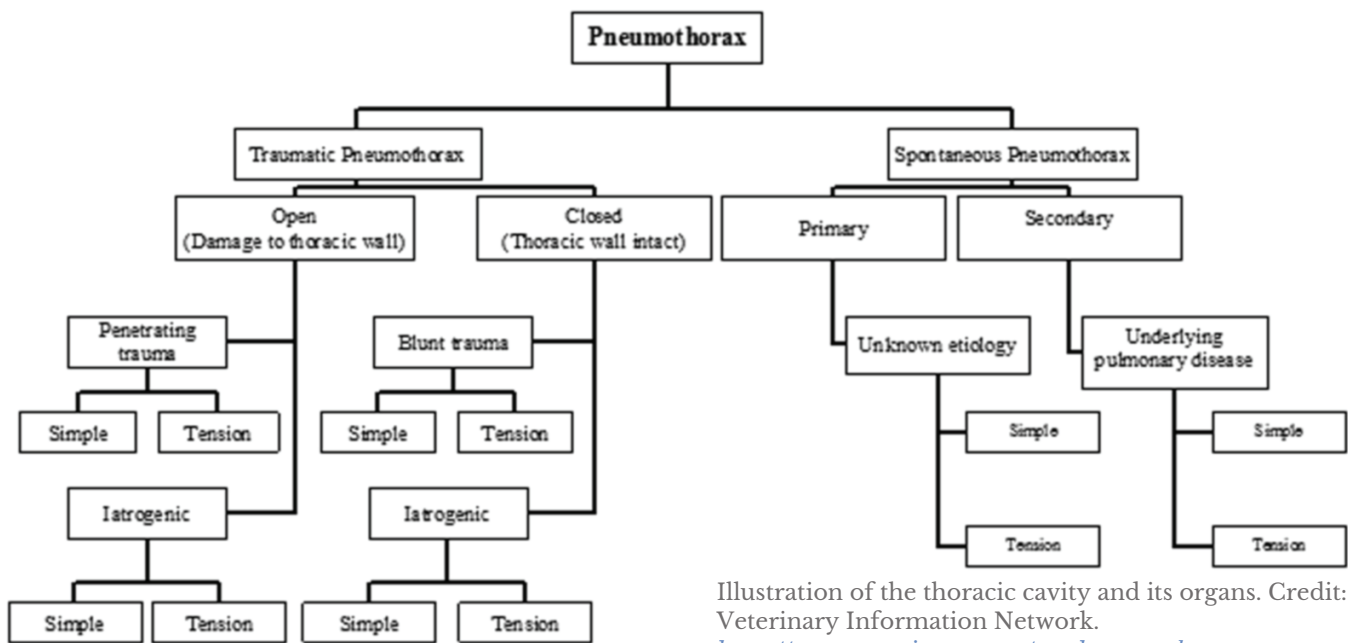


Illustration of the thoracic cavity and its organs. Credit: Veterinary Information Network. <https://www.marvistavet.com/pyothorax.pml>.

This is the most severe prognosis since it leads to an increased mechanical pressure on the thoracic cavity organs and structures. It is more often due to a lung parenchyma damage that will act as a one-way valve. When the intrapleural pressure exceeds the one of the atmosphere, the vena cava collapses, the venous blood return to heart decreases, the cardiovascular can't work properly anymore, and, if not treated quickly, the animal dies.

The animals affected by a pneumothorax will compensate by a rapid shallow respiration. The distress observed is more or less proportional to the severity of the condition, and the time passed since its beginning. In the case of a traumatic pneumothorax, other clinical signs may accompany the condition, such as a subcutaneous emphysema, wounds, hemorrhage or fractured ribs. To confirm the diagnosis, needle thoracocentesis can be performed using a butterfly catheter, or a 20- to 22-gauge needle attached to an extension set, a three-way stopcock and a 60- mL syringe (Pawloski, 2010), by paying a special attention to the length of the needle that will penetrate into the pleural space. The animal will be placed in a sternal recumbency and supplemented in oxygen.



Polytraumatized cat with pneumothorax. USAMVB Emergency Hospital, ICU unit

Diagnosis:

As emergency vets, the first diagnosis tool is always a great knowledge of the common symptoms and a quick mind in order to ask the right questions to the owner, and thus, do the right additional exams. Of course, a traumatic pneumothorax will always be easier to think about and to identify based on history, physical examination and thoracic radiography, than a pneumothorax caused by a bulbae rupture...



Polytraumatized cat with pneumothorax. USAMVB Emergency Hospital, ICU unit

A small area in the lateral thorax between the ribs 6 and 9 will be prepared in aseptic conditions. The needle is slowly inserted, air is aspirated in the syringe, and released through the three-way stopcock until a negative pressure is obtained.

The clinician must be careful to the tip of its syringe so he can remove it whenever he feels the lung and not damage its structure. This procedure must be done on both sides and is diagnostic as well as therapeutic.

After the pneumothorax is evacuated, the clinician will do an X-ray from each angle (lateral L/R and ventral) in order to look for the reason of the condition whenever the trauma is not evident. The animal security being our first priority, when symptoms and history are leading us to a high suspicion for a pneumothorax, the emergency practitioner will do the thoracocentesis before the X-ray.

The radiographic diagnosis must be based on the difference between intrapulmonary air and free air within the pleural cavity. In the case of a pneumothorax the air inside the lungs indeed appears more radio-opaque than the free air. In addition, the cardiac silhouette will be affected since the heart will be elevated from the sternum, and this aspect can only be seen in a lateral recumbency. Additional important diagnostics for a pneumothorax include computed tomography (CT) and thoracoscopy. The CT becomes a very useful tool when it comes to identify the lesion, and to evaluate the surrounding structures. According to *Au et al. in 2006*, a CT identifies 2.5 times more lesions in dogs than a conventional radiography.

Treatment:

The first reflex to have is to stabilize the animal with a strict rest, oxygen supplementation and air drainage by thoracocentesis. If there are any visible wounds, those must be closed immediately. In most cases a needle thoracocentesis will provide an immediate amelioration of the breathing, but it might not be enough. If this is the case, a tube thoracostomy can be performed. According to *Puerto et al.*, the needle is indeed not enough whenever the thoracocentesis is performed more than twice in 24 hours and when the accumulation of free air is continuous.

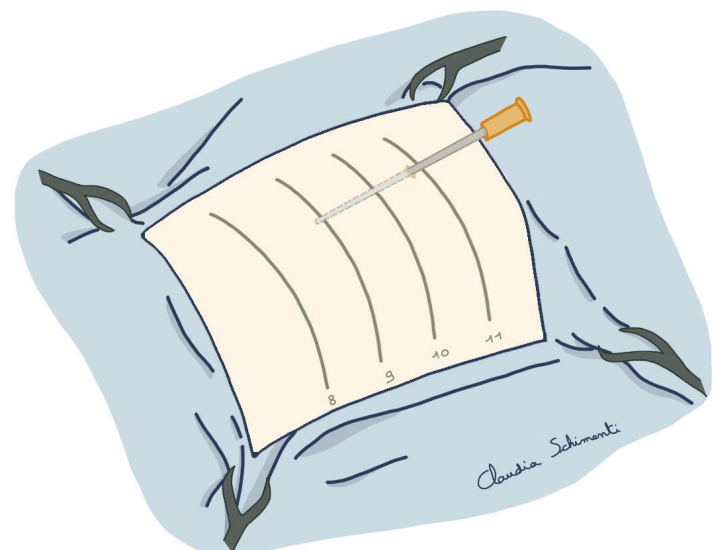
Equipment needed for a thoracostomy tube placement:

- Clipper;
- Chlorhexidine & povidone iodine;
- Marker pen;
- Gauzes;
- Adhesive surgical drapes;
- # 10 or # 15 blades;
- 3/0 & 4/0 absorbable suture;
- Elastic bandage;
- Basic soft tissue surgical equipment.



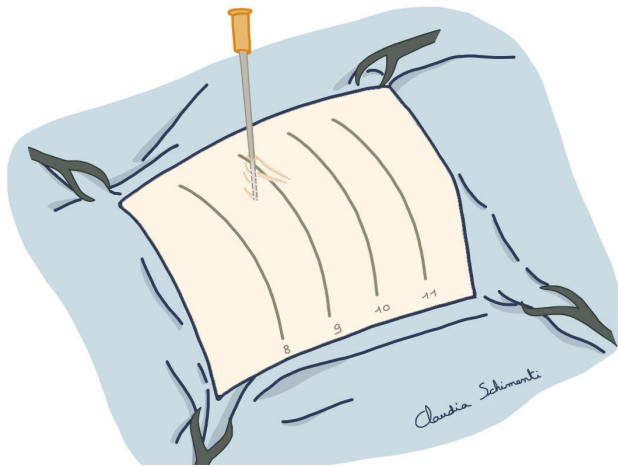
Equipment for thoracostomy tube placement. Photo credit Dr. Seralp Uzun.

A tube thoracostomy is performed using a thoracostomy tube, a connector piece and a syringe or a continuous suction unit. The tube has to be placed with a particular attention since it has the potential to perforate the lung as it contains a trocar inside that will help us placing the tube. The animal is put under general anesthesia, the area is aseptically prepared, and a small incision is made in the dorsal third of the lateral thoracic wall, at the level of the 11th rib.

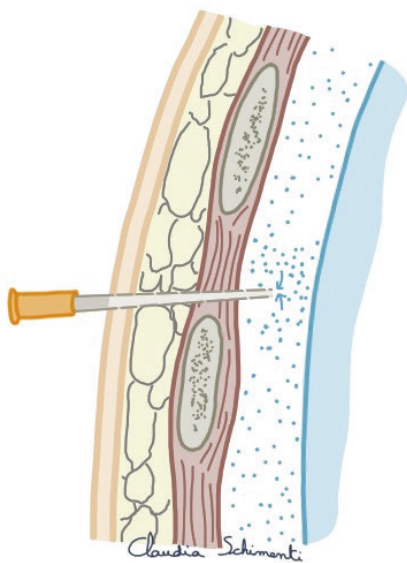


Claudia Schimenti, after pictures of Dr. Seralp Uzun, FMVB

The tube is then entered subcutaneously until approximately the rib 8 or 9, perpendicular to the chest wall. The trocar is then popped inside the thoracic cavity and a particular attention must be paid to not further damage any tissue.



Claudia Schimenti, after pictures of Dr. Seralp Uzun, FMVB



1. Skin. 2. Fat tissue. 3. Intercostal muscles. 4. Ribs (8 and 9).
5. Pleural space. 6. Lung. Claudia Schimenti, after M.J. Bojrab

Once the thoracostomy tube is advanced into the thorax, the trocar is removed, and the tube is occluded with an atraumatic clamp or C-clamp to prevent the influx of air into the thorax. The tube is connected to a three-way stopcock and is secured with a purse-string suture pattern in the skin and a Chinese finger trap around it.

If there is free air rapidly accumulating in the pleural space, continuous-suction unit may be required. A constant monitoring is needed since a failure of the system could lead to an acute respiratory distress.

Animals with a small pneumothorax induced by trauma can often be treated with a conservative condition only, such as making them rest in a cage with a continuous O₂ supply.

Nevertheless, if they suffer from larger wounds or have a spontaneous pneumothorax, a surgical intervention must be done, with a greater chance of success when done as early as possible. If the condition is confined to one single lobe only, a lateral thoracotomy with a lung lobectomy can be done, but the recommended approach is rather a median sternotomy with an entire view of the thoracic cavity in order not to miss any possible wound.

In most cases it is not an issue to identify the origin of the pneumothorax as it is quite obvious, but in the situations where the lesion is very small, we can identify the air leakage by using a sterile saline solution. We fill the thorax with it and we look for bubble formations while the lungs expand, which will indicate us the site of air leakage. In addition, filling the thorax with a sterile saline solution after the damaged tissue has been removed is beneficial if you want to make sure that there is no further air leakage which would result in a postoperative pneumothorax (Pawloski, 2010).

Conclusion:

It is now 5 a.m. in the morning. You are still exhausted, you still drunk too much coffee (if you find coffee addictive, take a look at our article page X !), but you just saved a life. You are now breathing properly, and so is your patient. He is now stabilized, his mucosa retrieved their normal color, and all he will have to do for now is to rest strictly. **He was lucky you read “The Campus”, because yes, we can all be heroes.**

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SLEIGHING INTO CHRISTMAS HOLIDAYS!

by Mathilde Breton, Chloé Loir

"It's the most wonderful time of the year" some will say. The air is getting colder, drinks are getting hotter, noses begin to turn red and there is something changed in the atmosphere, intangible but still. Houses are getting dressed in their most shiny gowns, and a white Christmas with a yard covered by a sparkling powder of snow is a wish shared by many. Christmas time is a time to share with your loved ones. And this includes of course all of our furry little friends! Some are getting their own presents under the tree, some are getting dressed in Santa's costumes, and some even get a special Christmassy meal. But to help you keep the magic alive, let us give you some tips to celebrate safely the Holidays with your pet.



1. No candy cane lane for him!

Avoid giving your dog large amounts of sugar or human candies that are not suited for your pet. Their high value of sugar is not adapted to their diet.

They could even choke on some of those candy canes.

So, ... no treats for Rex? Of course, you can give them some Christmas treats, but bake them special recipes, or you can buy some in many petshops.

2. Bye bye chocolate advent calender!

Chocolate contains Theobromine and caffeine, which are both toxic for dogs and cats.

For a 10kg dog, eating half of a sweet dark chocolate tablet can lead to his death if not treated on time. If you suspect your animal has eaten any kind and any amount of chocolate, please **contact your emergency veterinarian ASAP**. Now, what if you are really attached to sharing every Christmas tradition with your dog what can you do? Simply buy an advent calendar made for dogs, there are easy to find, and the treats are chocolate free!



3. Step back from the eggnog!

Those drinks contain Rhum, and you do not want to hangover your poor little friend.

They cannot process alcohol as we do, and this could cause serious damages or even death depending on the quantity ingested.

4. Turkey bones stay in your plates!

And greasy meals too. Avoid giving the bones to your pets as they could injure them severely.



Rather give them a bite of meat and a toy to chew on. Make sure to bake the meat without any salt or fat before you give it to your pet to avoid any spreading of salmonellosis. Avoid feeding the leftovers to your pets as they contain way too much fat for them and could make them pretty sick.

Avoid Foie gras, smoked salmon, stuffed turkey or any other kind of highly fat containing meals.



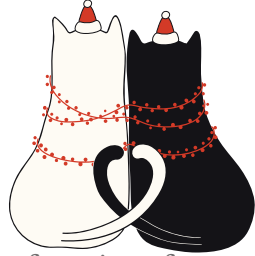
5. *Be careful with Santa's toys!*

If you have young children, you probably know how their toys can be tiny and spread all over the place.

Legos are not your friends. They are easily ingestible and can cause quite their level of damage once they're on their way through you animal's digestive tract.

6. *Handle the stress of your pet!*

As exciting as Christmas holidays can be for us, it is not always so much fun for our pets. Indeed, with Christmas comes family, trips, celebrations, noises.



All of those sudden changes of routine of even locations can cause stress or anxiety to our pets. So, make sure to prepare them gently before, during and after. Prepare a separate place for your pet where it will be calm and safe. Take time daily to go out and play with it.

Make sure to travel safely and to secure your pet properly in your car.

If you feel your pet is struggling a lot, please contact your veterinarian so he can check your pet and give it something to help a bit (plants, α-casozepin which is a milk protein that helps to relieve stress and works quite well, or even behavioral therapy tips, ...).



7. *"Baby it's cold outside"*

Another challenge of winter holidays is to protect your pets from the cold weather. They may be better prepared as we are thanks to their fur, but they can be the perfect target for snow related injuries such as

frost bites on their paws, nose or even tits! Some products exist so you can prepare your pet paws to the ice and snow, Paw wax acts as a direct mechanical barrier, or you can even buy some canicross boots that works perfectly well in the snow.

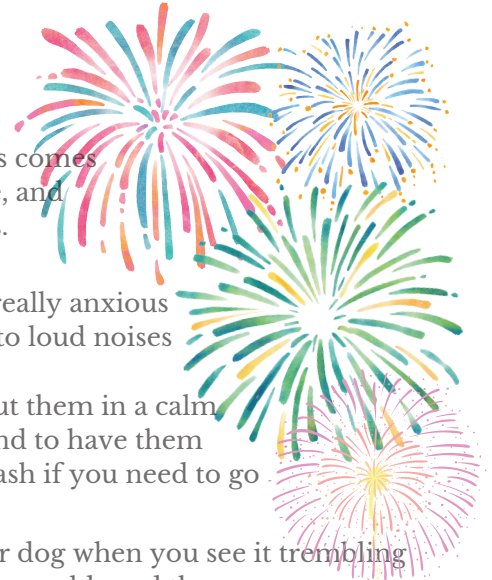
If your pet has long hairs and likes to jump in the snow, you might want to be careful about the icy blocks that form between back legs and abdominal hairs that prevent

them from walking because it pulls their hairs and hurts them. Same for the icy blocks that can create between their fingers. If you spend a long time outside, don't hesitate to increase a bit the quantity of food you give to your pet as staying warm in the cold, burns extra calories.

Always dry your pet once you're done playing outside.

8. *Fireworks!*

After Christmas comes New Year's Eve, and along fireworks.



Many pets get really anxious when it comes to loud noises and fireworks.

Make sure to put them in a calm environment and to have them secured on a leash if you need to go out with them.

Do not pet your dog when you see it trembling with fear as you would send the wrong message saying "yes you are right to worry. Good boy." I know it seems hard, but just let them be. You can also put some music or tv they like to try and distract them from the fireworks sounds, and of course talk to your veterinarian to find a solution together if necessary.



9. *Hey Horse lovers, we did not forget about you!*

Less is more! Don't let too many carrots for the donkey in front of the chimney...

If you go to visit your lovely companion and want to prepare him a bucket of carrots, apple, candies, etc. keep in mind that they are food lovers and therefore can/will eat very fast. Thus, think about cutting everything in very small pieces to avoid esophageal obstruction and then respiratory distress! If you want to take beautiful pictures in the snow, remember to check under the hooves afterwards and to remove the ice blocks stuck in it if necessary as it can be dangerous for the stability of the horse who could glide. Prefer to put some grease on the sole to avoid snow accumulation or purchase some pads or boots especially made for this.

10. *Don't forget to have a Jolly Christmas, to take care of yourself and of your loved ones.*

MORNING COFFEE

by Maria Nestian

When the alarm rings, you wake up, look out the window, the sun is nowhere to be seen and it's barely 6 am, you have little time to get ready to go to your class, so you need to find a magic solution that will help you do your best all day long, right?

Have you ever wondered how coffee has been discovered?

Well, it's a long story here, but it's a good one. A long time ago, a goat herder, Kaldi (who lived around the 9th century) realised that his goats started „dancing crazily” after eating some fruits from a specific tree. He later brought these cherries to the monastery and shared them with the monks who exclaimed that they were the Devil's work and hurled them into the fire. The aroma of the beans roasting in the fire was heavenly and the beans were raked from the fire and crushed to put out the embers. Realizing their mistake, they placed them into a jug and covered with hot water for preservation. Later the monks drank the brew and it helped them keep awake during nightly devotions.

Even the word coffee derives from Kaffa, name of a place in the South Western Ethiopian highlands where coffee was first discovered. But why do we crave coffee so much? In medical specialist's opinion, coffee stimulates dopamine release in the body, just like some other drugs. That's what makes our body need coffee. It is shown that low to moderate doses of caffeine increase well-being, energy and sociability. Caffeine dependence appears to be influenced by genetics. That means that it is more probable for you to love coffee if your parents do.

In my opinion, coffee is a magical beverage and you have to enjoy it (with some limits) every day, especially when you have long, stressful days that require a lot of concentration and dedication.

When the alarm rings, you wake up, look out the window, the sun is nowhere to be seen and it's barely 6 am, you have little time to get ready to go to your class, so you need to find a magic solution that will help you do your best all day long, right?

I'm not a magician, but I can give you the recipe for a cold brew that will energise you all day long. I know that, in the morning, every minute matters when you are in a hurry. That's why I have chosen this recipe. This is also an alternative way of preparing coffee that will offer you the highest amount of caffeine in a beverage that has a low acidity profile. The perfect cold brew needs to be prepared with at least 22 hours before enjoying it. You can also keep it in the fridge where it lasts for about 5 days.

You will need:

- A glass bottle or a jar
- A tablespoon
- Your favourite coffee ground medium to coarse
- Room temperature filtered water
- Paper filter

Let's prepare your coffee:

1. Add the coffee and water in the bottle or jar in a 1:5 ratio
 2. Stir until all the coffee grounds are wet
 3. Cover the bottle and let it brew overnight
- After 22 hours, using the paper filter, strain your coffee.

Depending on how you like to enjoy your beverage, you can mix it with milk, sugar, syrup or even tonic water for a sparkling bitter taste.

Find your favorite combination or try new ones everyday and you are ready to go to classes and learn valuable information for your future!



CAFEAUA DE DIMINEAȚĂ

by Maria Nestian

Cand suna alarma, te trezești, te uiți pe geam, vezi ca e incaintuneric si e de abia ora 6, ai puțin timp sa te pregatesti sa pleci la cursuri, deci va trebui sa gasesti o solutie magica ce te va ajuta sa dai tot ce e mai bun din tine intreaga zi, nu?

Te-ai intrebat vreodata cum a fost descoperita cafeaua?

Ei bine, este o poveste lunga, in sa si interesanta. Un pastor, Kaldi, care a trait secolul al ix -lea, a observat ca, daca mancau fructele unui anume copac, caprele incepeau sa danseze nebuneste. Vazand acestea, a luat ciresese de cafea si le-a dus la calugari in speranta ca va afla mai multe de la ei. Cand au auzit cele intamplate, acestia au spus ca sunt fructele diavolului si trebuie aruncate in foc. In momentul in care au inceput sa se prajeasca, un miros imbietor i-a surprins pe toti. In acel moment si-au dat seama ca au facut o greseala si au scos fructele din foc, le-au zdrobit si le-au pus intr-un borcan cu apa fierbinte pentru a le pastra. Calugarii au realizat ca daca beau din apa respectiva puteau sa stea mai mult treji si concentrati in timpul rugaciunilor din timpul noptii. Chiar si denumirea de „cafea” vine de la regiunea Kaffa din zona de Sud- Vest a Ethiopiei, acolo unde a fost prima data descoperit arborele de cafea.

Dar de ce simtim nevoia de a bea cafea? Studiile medicale au demonstrat ca, in organism, cofeina produce dopamina, asemanator cu modul de actiune al unor droguri. De asemenea, in cantitati mici sau moderate ne ofera stare de spirit mai buna, energie si ne face mai sociabili. Dependenta de cofeina este determinata si genetic , deci este foarte probabil ca tie sa iti placa cafeaua daca parintilor tai le place.

In opinia mea, cafeaua este bautura Zeilor si trebuie sa te bucuri de ea zilnic, desigur cu anumite limite, fiind aliatul nostru cel mai de incredere in zilele obositoare si stresante in care ai nevoie de concentrare si dedicare.



Cand suna alarma, te trezești, te uiți pe geam, vezi ca e incaintuneric si e de abia ora 6, ai puțin timp sa te pregatesti sa pleci la cursuri, deci va trebui sa gasesti o solutie magica ce te va ajuta sa dai tot ce e mai bun din tine intreaga zi, nu?

Nu ma pricep la magie, dar pot sa iti dau reteta unui cold brewce iti va oferi energie intreaga zi. Stiu ca orice minut conteaza cand te grabesti sa ajungi la cursuri, tocmai de aceea am ales aceasta reteta pentru ca trebuie pregatita cu aproximativ 22 de ore inainte de a o savura, iar dimineata va trebui doar sa o pui in ceasca preferata si sa te bucuri de ea. De asemenea, aceasta metoda de preparare a cafelei iti ofera o bautura cu o cantitate foarte mare de cofeina, dar o aciditate scazuta.

Tot ce ai nevoie e:

- Un recipient din sticla
- O lingurita
- Cafeaua ta preferata macinata mediu- grosier
- Apa la temperatura camerei
- Filtru de hartie

Cum sa prepari cafeaua:

1. Aadauga in recipientul din sticla curat cafeaua si apa in raport de 1:5
2. Amesteca pana te asiguri ca tot patul de cafea este ud
3. Acopera recipientul si lasa-l peste noapte la infuzat

Dupa aproximativ 22 de ore de infuzare, poti filtra cafeaua si o poti pastra in frigider intr-un recipient inchis pana la 5 zile, timp in care te poti bucura de ea zilnic.

In functie de cum iti place tie sa savurezi cafeaua, poti combina cold brew-ul cu lapte, zahar, siropuri sau chiar apa tonica.

Gaseste combinatia perfecta pentru tine sau incearca zilnic ceva nou si esti gata de o noua zi in care vei invata informatii importante pentru viitorul tau!

STORY BEHIND THE WALLS

by Petre Ciprian Dragomir

I want to start this article with a game of imagination and to transpose ourselves into a museum, or a wing of a museum, dedicated to the history of the Faculty of Veterinary Medicine and the path it has taken through it.

Let's enter the hall of our museum. "Do you know which was the first veterinary school in the world?"



The first college, or rather the first veterinary school, because at that time it functioned under the name of school and we will see further why, was in France, in Lyon in 1762.

Let's go further and enter deeper in our museum. "But in Romania? Can you think of the century I want to refer to? To help you, I will tell you that I was wrong, because at that time our country was called the Romanian Principalities". "The XIX century?"

"Exactly!" We begin with the year 1831, when the first forms of education in the veterinary field began to appear, be they elementary or secondary, a veterinary school and in 1832 veterinary art courses.

In 1856, Dr. Carol Davila (of French origin), army general, doctor, founded in Bucharest the first medical school in the Balkan countries that also had courses in the field of animal diseases.

Carol Davila presents himself to the ruler Alexandru Ioan Cuza with a deep and realistic opinion on the health problems in Wallachia and presents a report and concrete proposals on the necessary measures from a sanitary point of view. Thus, at the end of 1860, the Organic Regulation

published from the sanitary service a decree establishing the first Veterinary School in the Romanian Principalities, starting January 1, 1861.

It declared at that time that:

" În fiecare an epizootia aduce desoluțiunea între agricultorii țării, prăpădind cea mai bună parte de vite, care sunt mijloacele de

muncă și bogăție a țăranilor.

Necesitatea de oameni speciali care prin măsurile profilactice să împiedice cauzele boalelor, să caute vitele bolnave, s-a constatat de toți oamenii competenți.

Oameni cu cunoștințe speciale, trebuie să fie formați și pentru acest sfârșit

o școală specială de arta veterinăriei va fi deschisă la

1 Ianuarie 1861"

"Every year the epizootic brings dissolution among your country's farmers, destroying the best part of cattle, which are the means of

labor and wealth of the peasants.

The need for special people who through prophylactic measures to prevents the causes of disease, to look for sick cattle, it was found

by all competent people.

People with special knowledge must also be trained for this end

a special art school of veterinary medicine will be opened at

1 January 1861"

From May 15, 1861, veterinary education in Romania really begins, which, according to its founder, the first students of this school are the first national seed of the veterinary education proper.

In 1883, under the direction of Alexandru Locusteanu, the Veterinary School obtained the status of Higher School of Veterinary Medicine. Also in 1883, the Higher School of Veterinary Medicine passed from the Ministry of Instruction to the Ministry of Agriculture, and Alexandru Locusteanu began the steps for building his own school, finally acquiring 3 ha of land (between Splaiul Independentei and Izvor Street) for the buildings needed for the school.

We have to thank him, because Locusteanu and his friends bought the 3 ha with their own money and without this immense effort we wouldn't have what we have now.

Let's go upstairs...

TO BE CONTINUED...

HOROSCOPE FOR VETERINARY MEDICINE STUDENTS

BEFORE WE LEAVE YOU FOR CHRISTMAS SHOPPING, YOU SHOULD TAKE A LOOK AT YOUR HOROSCOPE.

- ♈ ARIES: Having some head trauma with your final thesis? Come on you can do it!
- ♉ TAURUS: Are you still sleepy? You should read the 'morning coffee' article again.
- ♊ GEMINI: Your MM are pale, and CRT getting high. You can have shock!
- ♋ CANCER: Toxicology is necessary in veterinary medicine, but toxic people definetely not.
- ♌ LEO: Wanna be a surgeon in the future? Try harder. You can do this.
- ♍ VIRGO: Stop partying! You still have exams.
- ♎ LIBRA: The balance in life is just like the balance between internal medicine and surgery.
- ♏ SCORPIO: Cats fall on their four legs, but we don't. Stop dreaming. Study for your exams.
- ♐ SAGITARRIUS: We know we know. You are the best. Show it with your grades too.
- ♑ CAPRICORN: What's the problem? Tachycardia after exam? We offer you daisy tea. Enjoy!
- ♒ AQUARIUS: You seem dehydrated. Drink more H2O!
- ♓ PISCES: Stop thinking your summer camp! We will deal with it!