

# DRONTEK

## DUST MITE CONTROLLER

### Electronic Device against Mite Allergy

### Scientific Documentation

## **EVALUATION OF THE CLINICAL TRIALS Conducted at Merate Hospital**

The obtained results have been first split into the various periods (months) and then considered as a daily basis (data attached).

This approach has permitted a better understanding of the improvement trend for the groups that used the electronic device.

In this way it was also feasible to look at the results from a statistical point of view. The statistical analysis shows that the difference between the group with the electronic device and the control group is statistically significant.

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Clinical Study No 1:

**ULTRASONIC WAVES AS AN ENVIRONMENTAL PROTECTION  
AGAINST DUST MITES.  
(European Congress, Bruxelles 1999)**

Source: Brivio Giulio, MD

**ELECTRONIC DEVICE**

	Days with symptoms (20 patients)	
	1st Month	2nd and 3rd Month
Dyspnoea	21	25
Rhinorrhoea	29	34
Nasl Cong	33	45
<i>Drugs intake</i>	<i>47</i>	<i>61</i>

**CONTROL**

	Days with symptoms (20 patients)	
	1st Month	2nd and 3rd Month
Dyspnoea	31	48
Rhinorrhoea	35	56
Nasl Cong	39	63
<i>Drugs intake</i>	<i>50</i>	<i>89</i>

Clinical Study No 2:

**A COMPARISON BETWEEN 2 MEANS OF ENVIRONMENTAL PROTECTION AGAINST MITES:  
MATTRESSES COVER VS. ULTRASONIC WAVES EMITTER.  
(European Congress, Lisbon 2000)**

**ELECTRONIC DEVICE**

Days with symptoms (15 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	72	101	121
Rhinorrhoea	268	289	271
Nasl Cong	376	407	249
<i>Drugs intake</i>	<i>402</i>	<i>496</i>	<i>427</i>

**COVER MATTRESS**

Days with symptoms (15 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	56	98	128
Rhinorrhoea	137	322	393
Nasl Cong	178	382	448
<i>Drugs intake</i>	<i>283</i>	<i>426</i>	<i>596</i>

**CONTROL**

Days with symptoms (15 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	73	120	191
Rhinorrhoea	181	341	534
Nasl Cong	198	368	550
<i>Drugs intake</i>	<i>289</i>	<i>447</i>	<i>734</i>

Clinical Study No 3:

**A COMPARISON BETWEEN ULTRASONIC WAVES EMITTER  
AND A CHEMICAL ACARICIDE IN IMPLEMENTING  
ENVIRONMENTAL PROTECTION AGAINST MITES  
(European Congress, Berlin 2001)**

**ELECTRONIC DEVICE**

Days with symptoms (16 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	78	116	114
Rhinorrhoea	209	299	317
Nasl Cong	321	351	232
<i>Drugs intake</i>	<i>386</i>	<i>461</i>	<i>454</i>

**ACARICIDE**

Days with symptoms (16 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	56	107	118
Rhinorrhoea	154	301	359
Nasl Cong	160	333	386
<i>Drugs intake</i>	<i>273</i>	<i>497</i>	<i>508</i>

**CONTROL**

Days with symptoms (16 patients)			
	1st Month	2nd and 3rd Month	4th, 5th and 6th Month
Dyspnoea	76	143	151
Rhinorrhoea	199	408	406
Nasl Cong	203	429	412
<i>Drugs intake</i>	<i>270</i>	<i>591</i>	<i>555</i>

## ANALYSIS OF THE DATA

In order to better understand the trend and the relevance of the results, the various types of symptoms have been considered as a single kind of symptom.

The data concerning the day with symptoms and the drugs intake have been split into different periods (1st month, 2nd- 3rd month, 4th - 6th month).

Finally, the data have been considered on a daily basis. In other words, the following calculation was done:

daily average 1st month = total days with symptoms 1st month / 30 days;

daily average 2nd and 3rd month = total days with symptoms 2nd -3rd month / 60 days;

and so on (and the same for drugs).

### CLINICAL STUDY Nth 1

#### Symptoms

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms, 2nd and 3rd Month	Daily Average 2nd and 3rd Month	Trend
Electronic Device	83	2.7	104	1.7	-37 %
Control	105	3.5	167	2.7	-23 %

#### Drugs

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms, 2nd and 3rd Month	Daily Average 2nd and 3rd Month	Trend
Electronic Device	47	1.5	61	1.0	-34 %
Control	50	1.6	89	1.4	-13 %

### CLINICAL STUDY Nth2

#### Symptoms

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms 2nd, 3 <sup>rd</sup> Month	Daily Average 2nd, 3rd Month	Total days with symptoms 4th, 5th, 6th Month	Daily Average 4th, 5th, 6th Month	Trend
Electronic Device	716	23.8	797	13.2	641	7.1	Strong decrease
Cover mattress	371	12.3	802	13.3	969	10.7	Poor decrease
Control	452	15.0	829	13.8	1275	14.1	No change

#### Drugs

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms 2nd, 3 <sup>rd</sup> Month	Daily Average 2nd, 3rd Month	Total days with symptoms 4th, 5th, 6th Month	Daily Average 4th, 5th, 6th Month	Trend
Electronic Device	402	13.4	496	8.2	427	4.7	Strong decrease
Cover mattress	283	9.4	426	7.1	596	6.6	Poor decrease
Control	289	9.6	447	7.4	734	8.1	No change

## CLINICAL STUDY Nth3

### Symptoms

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms 2nd, 3 <sup>rd</sup> Month	Daily Average 2nd, 3rd Month	Total days with symptoms 4th & 5th Month	Daily Average 4th and 5th Month	Trend
Electronic Device	608	<b>20.8</b>	766	<b>12.7</b>	663	<b>11</b>	<b>Strong decrease</b>
Acaricide	370	<b>12.3</b>	741	<b>12.3</b>	863	<b>14.3</b>	No change
Control	478	<b>15.9</b>	980	<b>16.3</b>	969	<b>16.1</b>	No change

### Drugs

Group	Total days with symptoms 1st Month	Daily Average 1st Month	Total days with symptoms 2nd, 3 <sup>rd</sup> Month	Daily Average 2nd, 3rd Month	Total days with symptoms 4th & 5th Month	Daily Average 4th & 5th Month	Trend
Electronic Device	386	<b>12.8</b>	461	<b>7.6</b>	454	<b>7.5</b>	<b>Strong decrease</b>
Acaricide	273	<b>9.1</b>	497	<b>8.2</b>	508	<b>8.4</b>	No change
Control	270	<b>9.0</b>	591	<b>9.8</b>	555	<b>9.2</b>	No change

## BRIEF REMARKS

The **first study** ends at 3rd month.

Result:

The improvement of symptoms and the reduction of drugs intake in the group with the electronic device are better than in the control group.

The **second study** ends at 6<sup>th</sup> month.

A longer time can probably permit more detailed evaluations.

Result:

The group with the electronic Device has shown a consistent improvement, both in symptoms and drugs use, up to reach, in the period 4th-6th month, a very high rate.

No changes in the control group, while the improvement in the group with cover mattress seems less than in the group with the electronic device.

**The data has been analysed from a statistical point of view: the improvement in the group with the electronic device is statistically significant.**

The **third study** ends at 5th month.

Result:

Substantial confirmation of the results of second study.

**The data has been analysed from a statistical point of view: The improvement in the group with the electronic device is statistically significant.**