Research report

- Abstract - to

the



Patient survey

March 2010





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1 Abstract

The *ATLANTOtec*® method is a special massage technique for correcting an atlas malposition. In order to be able to record changes in the patient's complaints due to a performed *ATLANTOtec*® treatment in a statistically secured manner, two *ATLANTOtec*® practices from Switzerland and Sweden conducted patient surveys in 2008 and 2009.

The interviews were conducted with the help of a standardised questionnaire, which was presented to the patients immediately before and about one month after the treatment on the occasion of a control session. The questionnaire contained 18 predefined complaint fields (e.g. neck, shoulder, back and knee complaints as well as headaches, sleep disorders and migraines) and the patients had the task of indicating their respective complaint status before and after the treatment in the dimensions of frequency and severity of the complaints on a 7-point rating scale (without verbal anchoring of the scale levels).

The questionnaires were collected and statistically analysed by the scientific institute INKAM (Institut für Kundenzufrie- denheits-Analysen und Marketing Prof. Dr. Theis GmbH, Marburg). A total of 504 persons, 297 women and 207 men, all between the ages of 16 and 84, took part in the survey. The degree of accuracy of the survey results is +/- 4.45% (degree of certainty 95.5%).

In summary, the following findings were obtained from the study:

- Very few patients came for treatment for only one or two reasons. As a rule, 10 or more areas of complaint were given.
- 74% of all patients were symptom-free one month after treatment in at least one of the symptom areas they mentioned.
- From the point of view of complete pain relief, the treatment achieved the greatest success with **migraine patients**: 39% of all those questioned were free of complaints (one month) after the atlas correction, for a further 43% there was relief in the frequency and/or severity of the complaints.
- Over 85% of all patients surveyed stated that they were free of complaints or at least had noticed a reduction in the frequency and/or severity of complaints in the following areas around one month after ATLANTOtec® treatment: Neck complaints, headaches and tension.
- At least 7 out of 10 patients surveyed stated that they were free of complaints or had at least noticed an alleviation in the frequency and/or severity of complaints for the following areas after ATLANTOtec® treatment: Shoulder complaints, dizziness, migraine, lower back complaints, fatigue, hip complaints, sleep complaints, tinnitus, depression and gastrointestinal complaints.

The results of the study are available in three versions of different length: Research report (130 pages), research report - abridged version (43 pages), results report (1 page).



2 Brief description of the ATLANTOtec® method*.

For some time now, manual therapists have recognised that many health problems can be caused by an incorrectly aligned cervical spine. In many cases, this is caused by a misalignment of the first cervical vertebra, the so-called atlas.

With the help of the *ATLANTOtec*® method, the atlas malposition is corrected. The procedure consists of applying a special massage technique to the short deep neck muscles, followed by stretching of specific muscles connected to the atlas. The aim here is to release the muscles that clasp the first cervical vertebra to allow it to return to the anatomically-physiologically correct position.

The treatment uses a specially designed device that pulses and vibrates at a specific frequency and can be adjusted according to muscle consistency and tone. This device enables relaxation of the deepest muscle layers, which could never be achieved with a manual massage.

After the (one-off) treatment (duration approx. 80 minutes), the body is given a regeneration period of about one month to adapt to the new situation. During a subsequent check-up session (duration approx. 60 minutes), the position of the atlas vertebra is checked and, if necessary, corrected if it is not yet perfectly in place.

The *ATLANTOtec*® method clearly differs from other therapies such as atlaslogy, vitalogy, atlas therapy according to Arlen or atlas orthogonal. There are no chiropractic movements with jerky turns of the head, nor are there any sudden movements. The focus is rather on a deep massage of the neck and back muscles with a specially designed device.

Source: www.atlantotec.com



3 Research design

3.1 Objectives and methodology of the survey

In 2008 and 2009, two *ATLANTOtec*® practices from Switzerland and Sweden conducted a patient survey. The basic aim of the survey was to record changes in patients' complaints as a result of *ATLANTOtec*® treatment.

Specifically, the survey aimed to find out:

- With what complaints do the patients come for treatment?
- For which complaints were the patients able to determine a treatment success? For which complaints is the *ATLANTOtec*® treatment most suitable?
- How has the frequency and severity of the complaints changed as a result of the ATLANTOtec® treatment?

From a methodological point of view, the survey is a

- Before and after examination: During the period mentioned above, all patients were given a questionnaire before the treatment in which they were asked to record their personal field of complaints in terms of frequency and severity. 18 different complaints were listed. In addition, they were given the opportunity to name their complaints freely. Furthermore, the interviewees were asked to indicate how long it had taken for the symptoms to improve since the treatment and to state their age. On the occasion of the control session, which took place about one month later, the questionnaire was handed out to them again with the request to enter the current complaint status.
- Sample survey: The survey was conducted in 2008/09 among all patients who were undergoing treatment at that time and who consented to the survey. The object of the study (population) was therefore "all patients in the study period". Although this did not pose a selection problem (selection of respondents from all ATLANTOtec® customers), it cannot be called a complete survey. After all, the focus is not on "all patients who were treated with the ATLANTOtec® method".
- Survey participants:: A total of <u>504 questionnaires</u> could be evaluated. Of all respondents, 297 were female and 207 male. The age of the respondents ranged from 16 to 84 years.



3.2 Reliability of the examination results

The study was tested with regard to the criteria of objectivity, reliability and validity. Overall, it fulfils the requirements for a so-called application observation. The validity of the study can be increased by clearly marking the first answer boxes as "No/no significant complaints" in future surveys (in all questionnaires). In addition, a category "No answer" should be introduced.

The degree of accuracy of the survey results can be described as follows: With a degree of certainty of 95.5% (error probability 4.5%) and a sample size of 504 questionnaires, a **degree of accuracy (random error) of +/- 4.45% can** be assumed. This means that the "true" (but unknown) value can deviate upwards or downwards by 4.45%. The level of the sampling error calculated in this way can be regarded as quite acceptable for the objective of the study. In the medium and long term, however, the patient survey should be continued so that the sampling error can be further reduced by increasing the number of respondents.

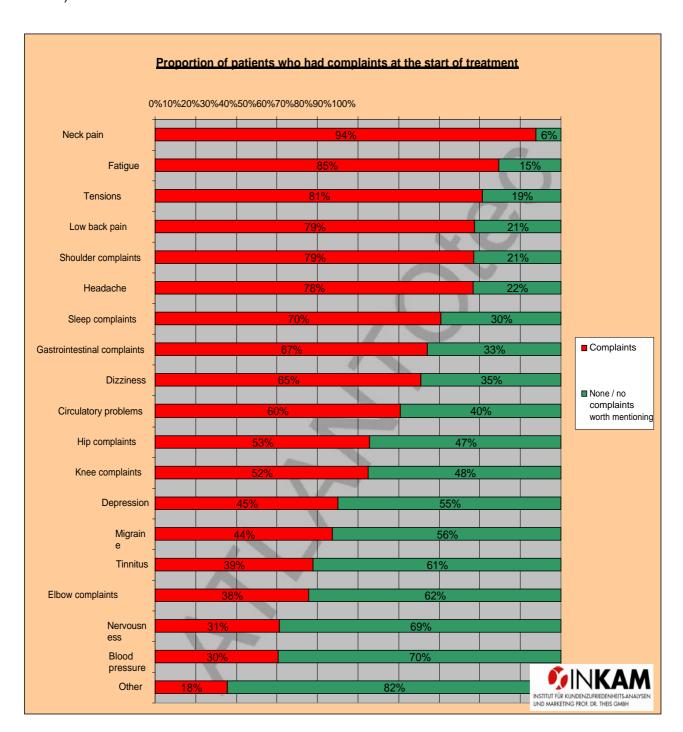


4 Study results at Overview

4.1 Complaint status at Start of treatment

Why do patients come to the *ATLANTOtec*® practice, i.e. for which complaints do they expect relief?

The following figure shows the results of the survey. It shows the proportion of respondents who had complaints before the treatment (and therefore ticked between 2 and 7 on the frequency scale).





Survey result:

At the beginning of the treatment, the patients name an average of about 11 (out of 18 given) different complaints that burden their well-being in varying intensity (frequency/strength) and where they therefore expect relief from the *ATLANTOtec* treatment.

Almost all patients mention neck pain.

More than three quarters are plagued by fatigue, tension, back pain, shoulder pain and headaches.

More than two thirds of all patients complain of sleep and gastrointestinal problems as well as dizziness.

Circulatory, hip and knee complaints are a reason for treatment for over half of all practice visitors.

More than a third of all respondents complain of depression, migraine, tinnitus and elbow pain.

The complaints mentioned by the respondents naturally burden the patients to varying degrees. For most of the complaints mentioned per person, a rather low frequency/severity is given (cf. the evaluation of individual complaint fields in chapter 4). As a rule, they are not the actual reason for visiting the practice. Rather, these are the areas of complaint that occur with great frequency or severity.

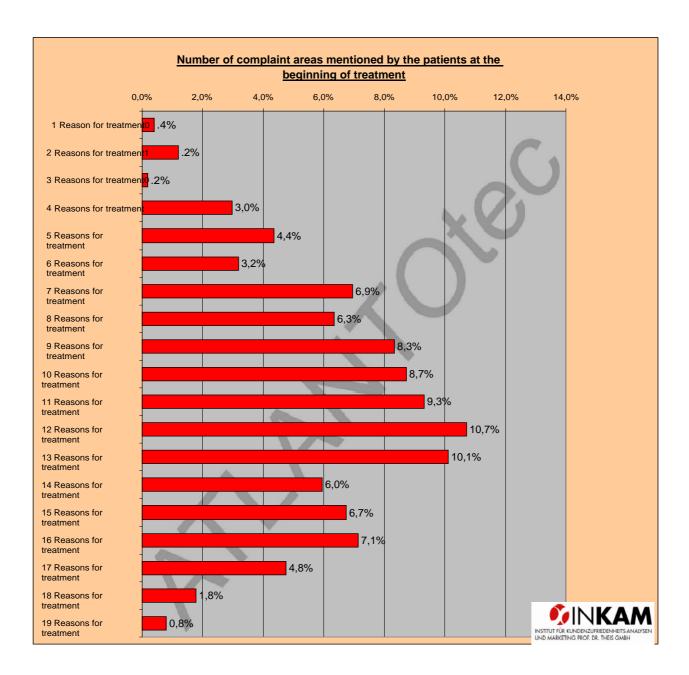
Chapter 3.6. makes it clear which complaints are involved.



4.2 Number of complaints at Start of treatment

As has become clear, patients do not usually visit the *ATLANTOtec*® practice for only one reason for their complaint. On average, about 11 out of 18 complaints are given.

The following figure shows how many different complaints patients are "plagued" with at the beginning of treatment.





Survey result:

Only a few patients come for treatment for one (0.4%) or two (1.2%) reasons. In most cases, there are 10 or more different areas of complaints that limit their well-being.

On average, the patients name about 11 (out of 18 given) different complaints.



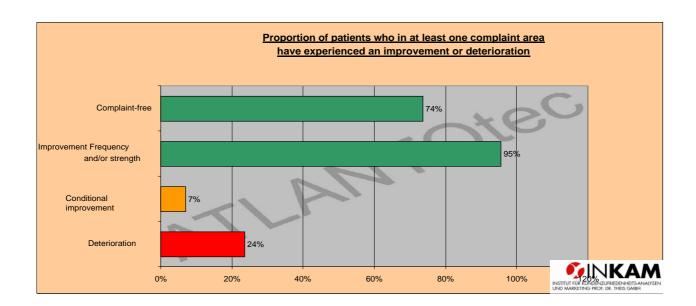
4.3 Treatment outcome general

Patients usually come to the practice with several complaints and hope for relief through the application of the *ATLANTOtec*® treatment.

A treatment success can be said to have been achieved if the patient is "free of complaints" in <u>at least one area</u> after about one month (after this period of time, the post-treatment questionnaire was conducted) or if there is at least an improvement in the frequency and/or severity of the <u>complaints</u>.

Another treatment outcome may be that the patient has had an exacerbation of their complaints in at least one area.

Occasionally, a combination of both can be observed: This is when the frequency of the complaints has increased in at least one area and the severity has decreased at the same time (or vice versa). Colloquially, one could speak of "improvement" (we use the term "conditional improvement").



Survey result:

Three quarters of all respondents (74%) were free of complaints in at least one area after the *ATLANTOtec*[®] treatment. An improvement in their well-being (through a decrease in the frequency and/or severity of the complaints) in at least one of their complaints was observed by 95% of all respondents.

24% observed a worsening in at least one complaint area. 7% experienced a "conditional improvement" in at least one complaint area.



4.4 Treatment outcome across all complaint areas

Previously, it was examined how many patients experienced an improvement or worsening in at least one complaint area. The focus is now on the question of what result is observed for 2, 3, 4 etc. areas of complaint. The following table shows the results for all areas of complaint. The following table shows the results for all 19 areas of complaint (18 predefined areas of complaint and one "other area of complaint").

Number of complaints Areas	Proportion free of complaints	Proportion Improvement (at frequency and/or strength)	Share Conditio nal Improvement	Proportion deterioration
0	26,4%	4,6%	93,1%	76,4%
1	21,4%	4,8%	5,8%	14,5%
2	16,3%	5,8%	1,2%	5,4%
3	12,9%	7,5%	0,0%	2,6%
4	6,7%	10,1%	0,0%	0,4%
5	4,4%	10,9%	0,0%	0,4%
6	2,8%	11,3%	0,0%	0,0%
7	3,4%	8,1%	0,0%	0,2%
8	1,4%	9,1%	0,0%	0,2%
9	1,2%	8,5%	0,0%	0,0%
10	1,8%	6,2%	0,0%	0,0%
11	0,2%	5,0%	0,0%	0,0%
12	0,6%	3,8%	0,0%	0,0%
13	0,2%	1,6%	0,0%	0,0%
14	0,4%	1,6%	0,0%	0,0%
15	0,0%	0,6%	0,0%	0,0%
16	0,0%	0,6%	0,0%	0,0%
17	0,0%	0,0%	0,0%	0,0%
18	0,0%	0,0%	0,0%	0,0%
19	0,0%	0,0%	0,0%	0,0%

Survey result:

The table shows for any number of complaint areas which treatment result was achieved. For example

26.4% not

symptom-free area after treatment

in any

21.4%free of

complaints inoneareaand 16.3%free of complaints in

two areas(hence: 37.8% are free of complaints in up to 2

areas).



4.5 Treatment success for individual complaint areas in terms of frequency and severity of complaints

The results described above have shown that by far the majority of patients experienced a general alleviation of their complaints through the *ATLANTOtec*® treatment. Now it has to be examined for the specific complaints how the treatment has affected the well-being of the patients.

Ideally, the patient is symptom-free after the treatment. However, success is also achieved when there is improvement due to decreasing frequency and/or severity.

On the other hand, the so-called "conditional improvement" takes a hybrid position: In individual cases, the frequency of the complaints decreases while the severity increases (or vice versa; the severity decreases while the frequency increases). To what extent one can actually speak of an "improvement" here is in the eye of the beholder.

Another possibility is that the patient does not notice any changes after the treatment or that the condition even worsens.

The following figure shows the results for the individual complaint fields.

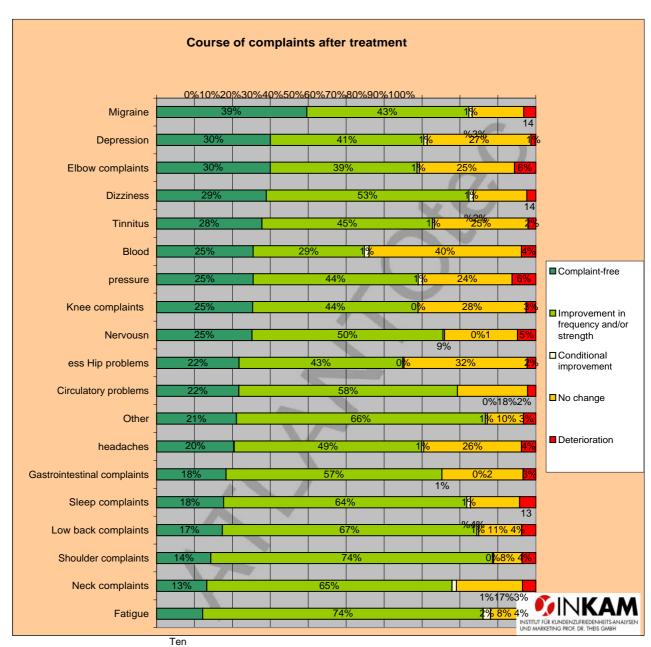
Survey result:

The evaluation of the patient survey shows that the *ATLANTOtec*® treatment was able to improve the patients' well-being in many areas of complaint.

The treatment achieved the greatest success with migraine patients: 39% of all respondents were free of complaints (one month) after the atlas correction. A further 43% experienced a reduction in the frequency and/or severity of their complaints.

At least seven out of ten patients surveyed stated that they were free of complaints or had at least noticed a reduction in the frequency and/or severity of complaints in the following areas around one month after the *ATLANTOtec*® treatment: Neck pain, headaches, tension, shoulder pain, dizziness, migraine, lower back pain, fatigue, hip pain, sleeping problems, tinnitus, depression and gastrointestinal problems.





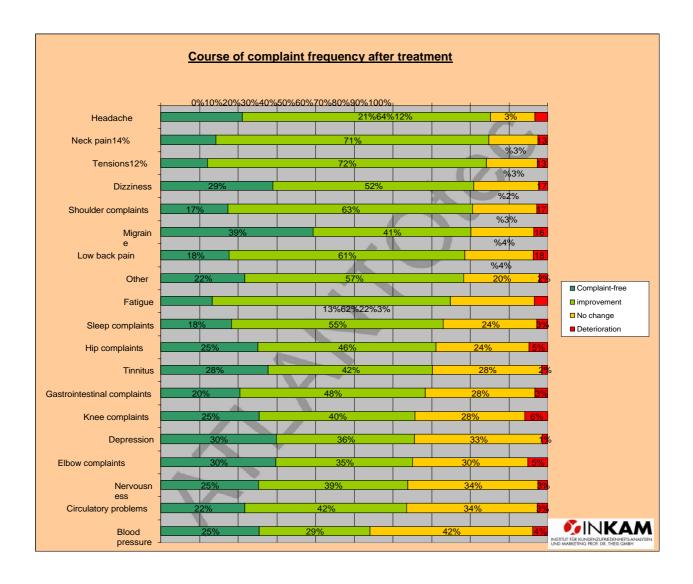
sions12%



4.6 Treatment success for individual complaint areas with regard to the frequency of complaints

The following figure shows how the *ATLANTOtec*[®] treatment affected the <u>frequency of</u> the individual complaints.

The result of the treatment may be that the patients are free of symptoms after the treatment or that there is at least an improvement (due to a decrease in the frequency of the symptoms). Furthermore, there is the possibility that no change (unchanged frequency) or a worsening (due to increasing frequency of occurrence) has occurred.





Survey result:

The *ATLANTOtec* treatment led to a decrease in the frequency of complaints in all the above-mentioned complaint areas in the majority of the patients surveyed.

The greatest treatment success in this regard was recorded by the patients surveyed for the issues of headaches and neck pain; 85% self-diagnosed a reduction in frequency or relief from pain.

The treatment was almost as successful with regard to the frequency of complaints of tension, dizziness, shoulder complaints and migraine; 8 out of 10 patients were able to record a relief of complaints or a lower frequency.

For more than 7 out of 10 respondents, the atlas correction led to pain relief or a reduction in the frequency of low back pain, fatigue, sleep, hip and tinnitus complaints.

6 out of 10 patients were able to observe success in all other areas of complaints (except blood pressure problems) in the form of relief from complaints or a decrease in the frequency of complaints.

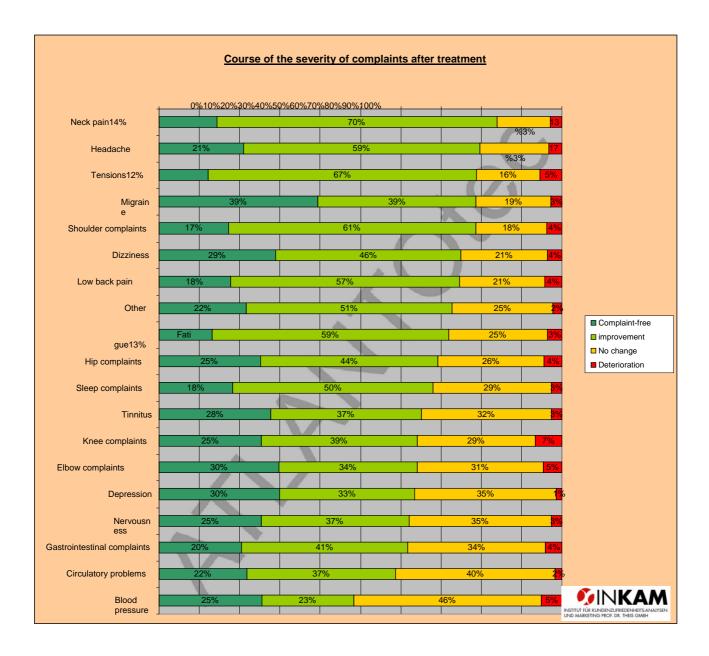
A worsening in the sense of an increasing frequency of complaints was only perceived in a few cases (e.g. 6% for knee complaints).



4.7 Treatment success for individual complaint areas with regard to the severity of the complaints

The following figure shows how the *ATLANTOtec*® treatment affected the <u>severity of</u> the individual complaints.

Here, too, possible treatment outcomes are: Free of symptoms, improvement, no change or worsening.





Survey result:

Overall, not only the frequency of the complaints but also their severity has decreased due to the *ATLANTOtec*® treatment.

Patients with neck complaints notice this most often. 84% experienced a reduction in intensity or relief from complaints.

The front-runner is closely followed by the issues of headaches, tension, migraine, shoulder complaints, dizziness, low back complaints and fatigue; for more than 7 out of 10 patients, the severity of the complaints has decreased or is no longer present at all.

More than half of all respondents see success in all other areas of complaints (slightly less than half for blood pressure complaints).



4.8 Average change in the degree of complaint frequency and severity

The result of the *ATLANTOtec*® treatment is usually a change in the frequency and/or severity of the complaints. In this respect, it is of interest to determine to what extent the frequency and severity of the complaints have changed on average.

The results of this question also provide information on the question of which areas of complaints the *ATLANTOtec*® treatment promises (statistically) the greatest success.

The graphs on the following two pages show the results of the calculations.

Survey result:

On average across all respondents, not only the frequency of <u>all</u>complaints but also their severity has decreased as a result of the *ATLANTOtec*® treatment.

Complaint frequency BEFORE treatment averaged 4.4 on the 7-point rating scale and 2.7 AFTER treatment. The severity BEFORE treatment averaged 4.2 and 2.6 AFTER treatment. Consequently, (on average across all complaint fields and respondents) complaint frequency decreased by 1.7 and severity by 1.6 steps.

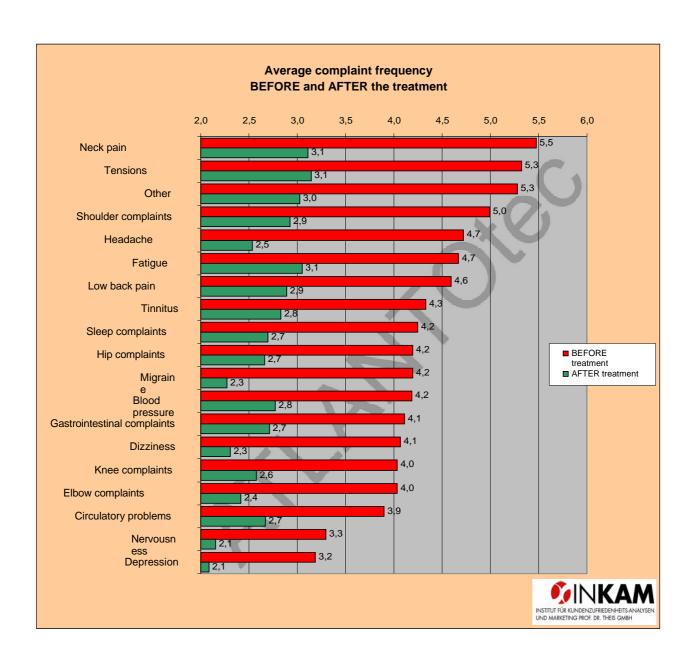
The patients with <u>neck complaints</u> notice this most clearly: The average frequency of complaints BEFORE the start of treatment was 5.5 on the 7-point rating scale and 3.1 after treatment (severity of complaints 5.2 and 3.0).

Similarly strong positive results were achieved in the complaint fields of <u>tension</u> and <u>shoulder complaints</u>. On the one hand, they affect the patients' well-being the most (frequency of complaints is highest here). On the other hand, they have the highest potential for reducing the frequency of complaints.

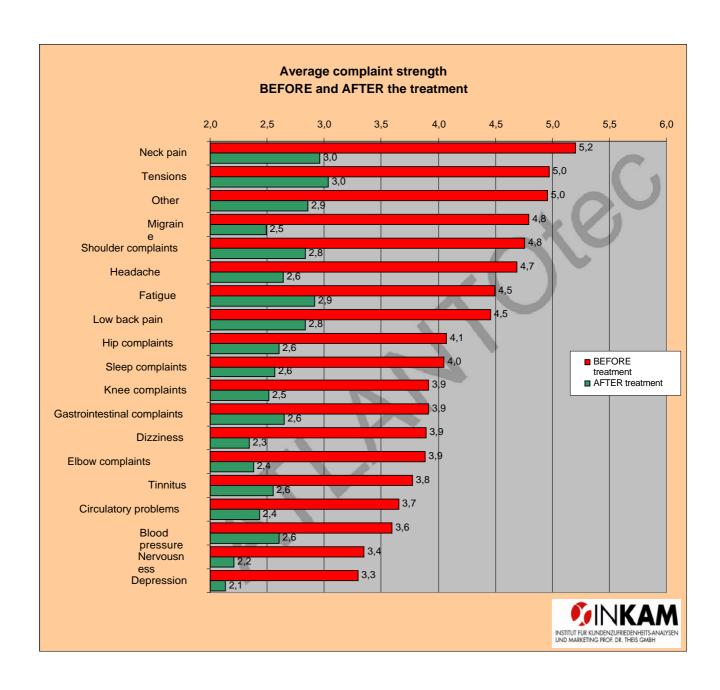
In all other areas of complaints, an extremely reduced frequency of complaints (on average) was also observed after the atlas correction.

With regard to the severity of the complaints, one result in particular should be emphasised: In the migraine complaint field (average load on the severity scale: 4.8), the severity could be reduced on average to level 2.5 through the atlas correction.











5 Fields of complaint in detail at

In the preceding explanations it became clear that the interviewees of the *ATLANTOtec*® treatment could certify a positive course of the complaints after the treatment for most of the complaint fields. Now the question arises whether different patient groups come to a similar conclusion or differ from each other.

When differentiating the judgements, it is important to distinguish between the countries surveyed (ATLANTOtec® - practices from Switzerland and Sweden) as well as the gender and age of the patients.

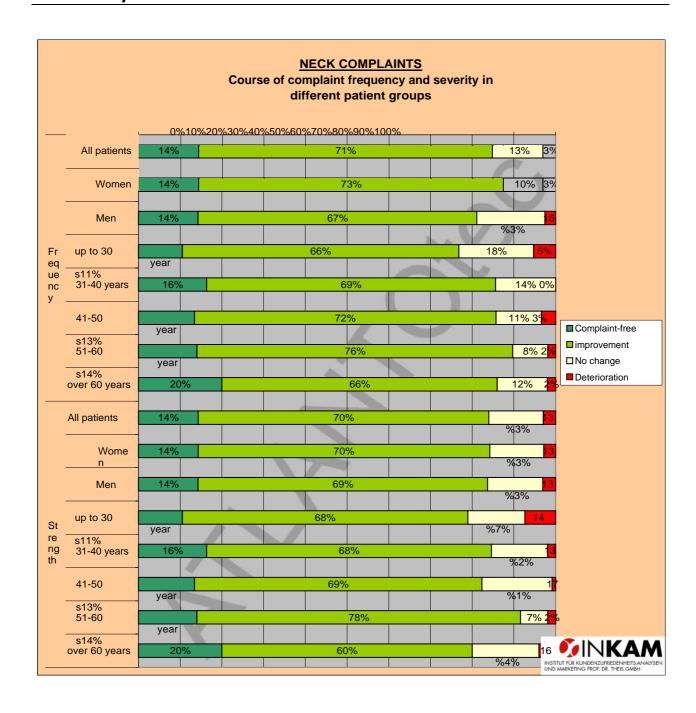
The following illustrations provide information about the course of the complaints in terms of <u>severity and frequency</u> in those patients who complained about complaints at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the ATLANTO- tec® treatment.

Basically, the treatment can lead to the following results:

- In the best case, patients are symptom-free after treatment (no or no significant complaints).
- However, treatment success is also achieved if the treatment has (only) led to an improvement (due to a decrease in the frequency or severity of the complaints).
- Furthermore, the result can be an unchanged frequency/strength (no improvement) or a deterioration (due to increasing frequency/strength).

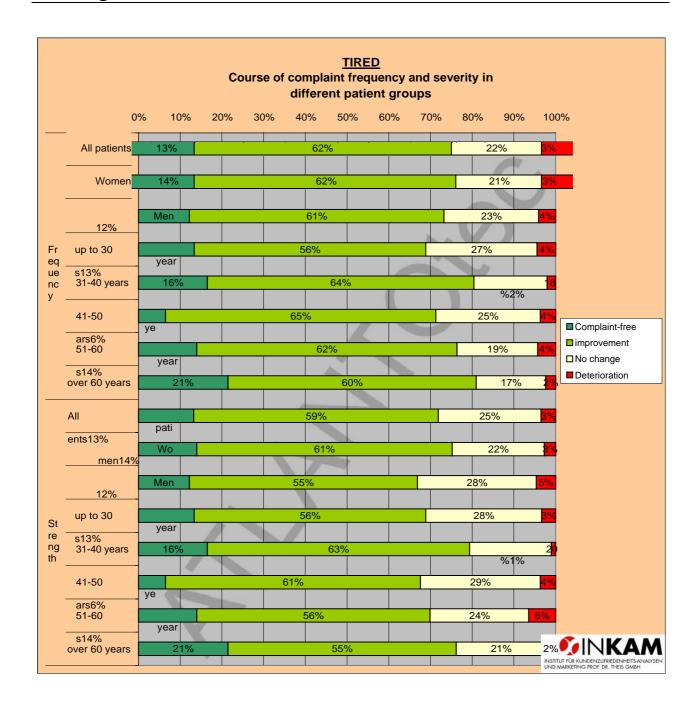


5.1 Neck pain



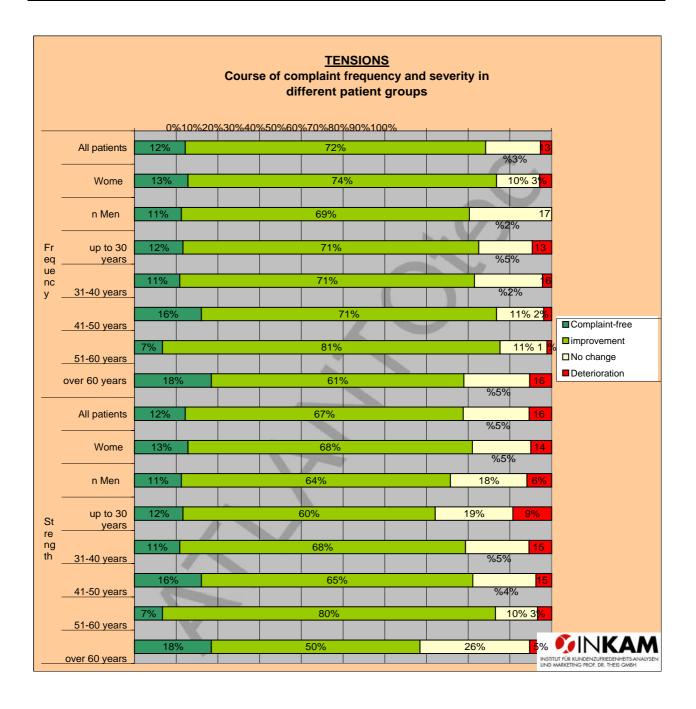


5.2 Fatigue



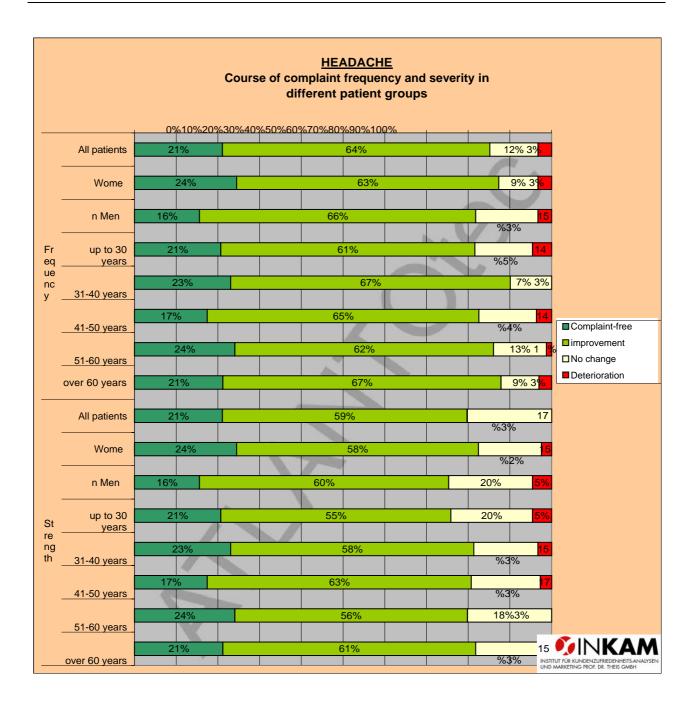


5.3 Tensions



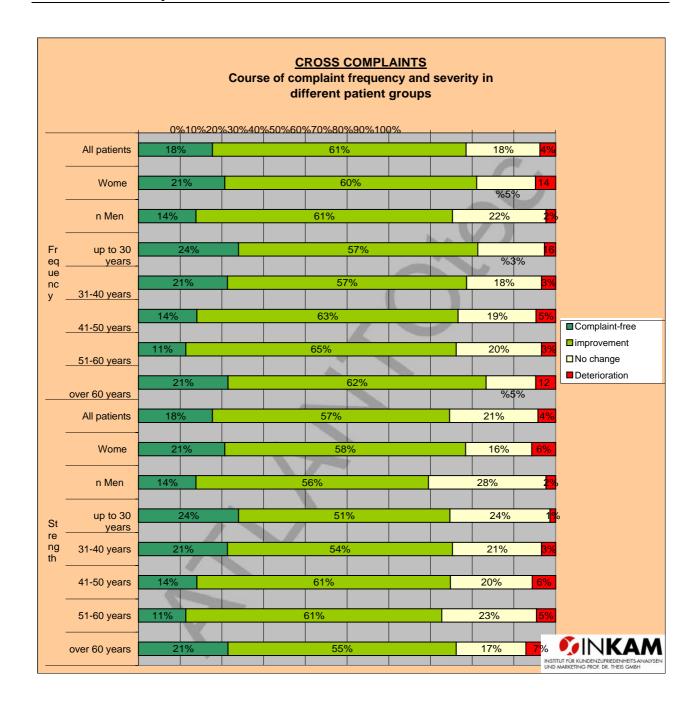


5.4 Headache



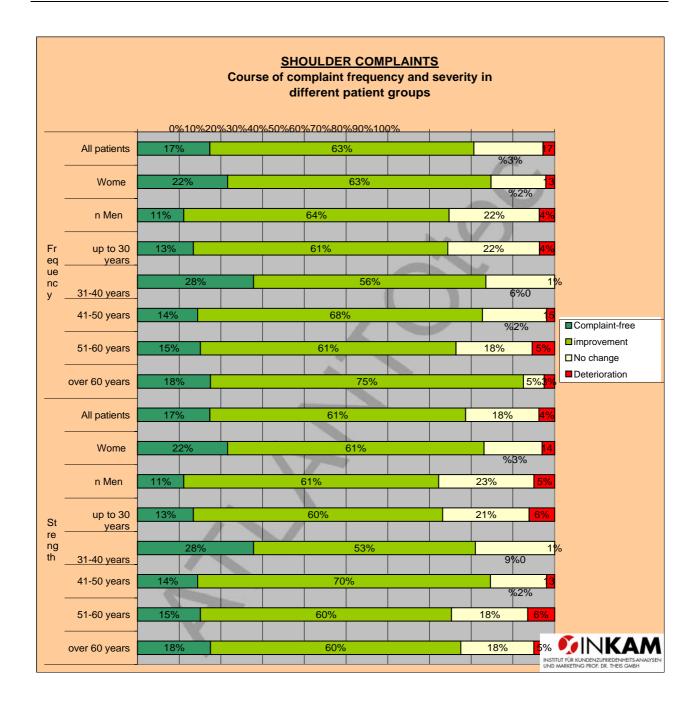


5.5 Cross complaints



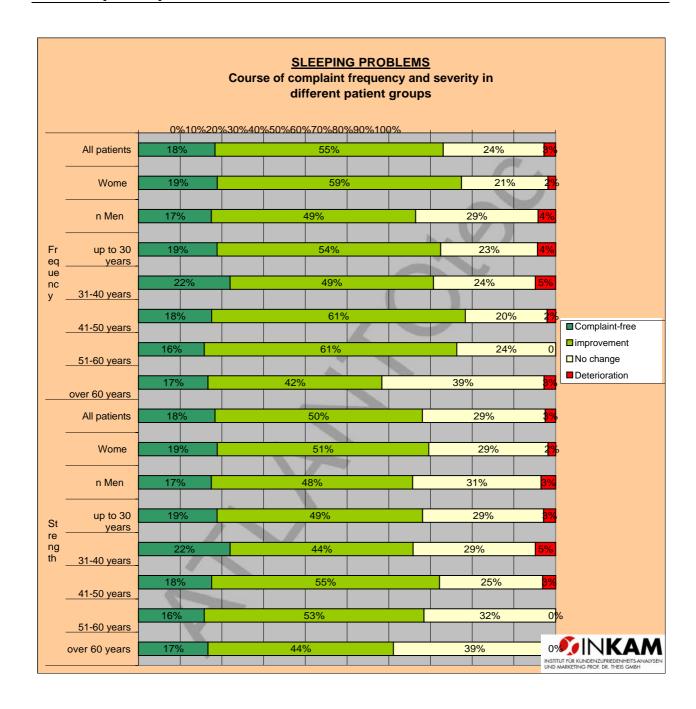


5.6 Shoulder complaints



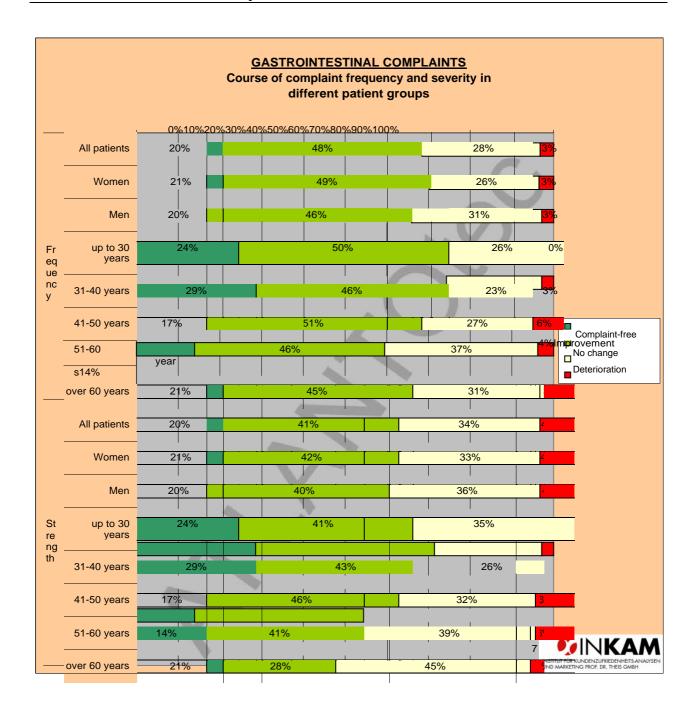


5.7 Sleep complaints



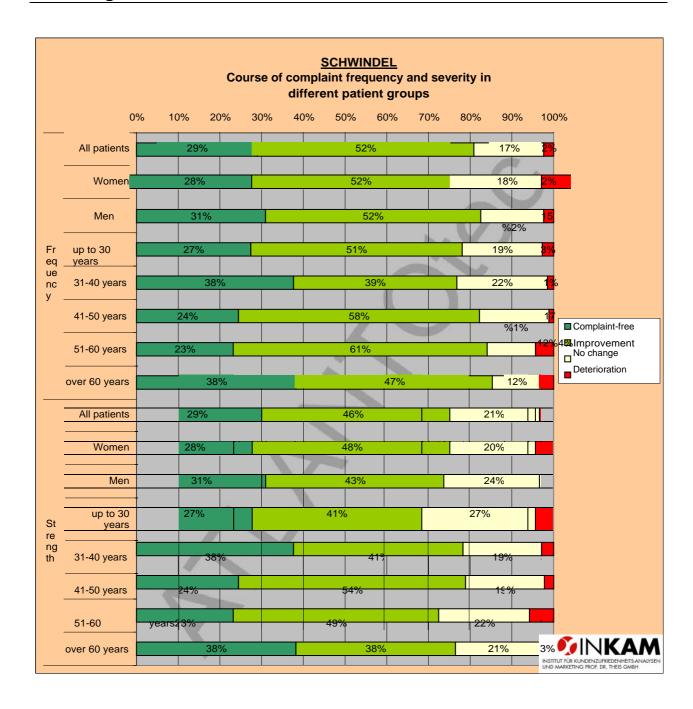


5.8 Gastrointestinal complaints





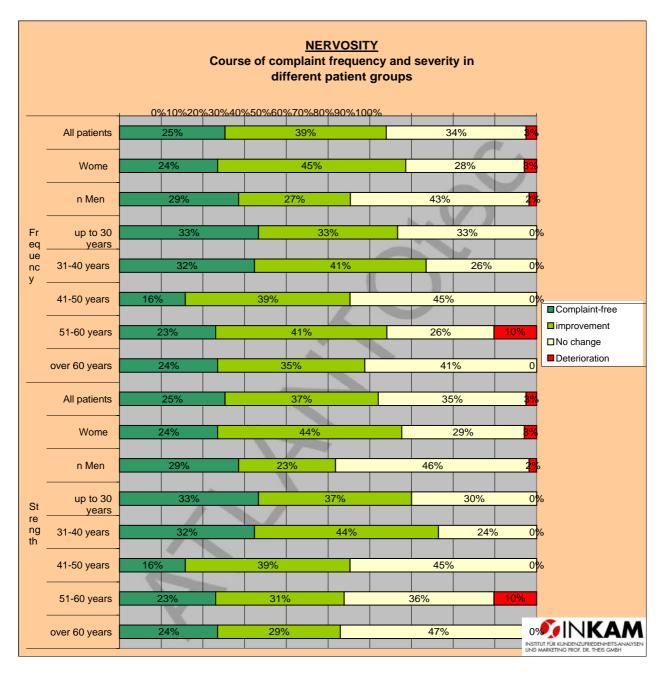
5.9 Vertigo





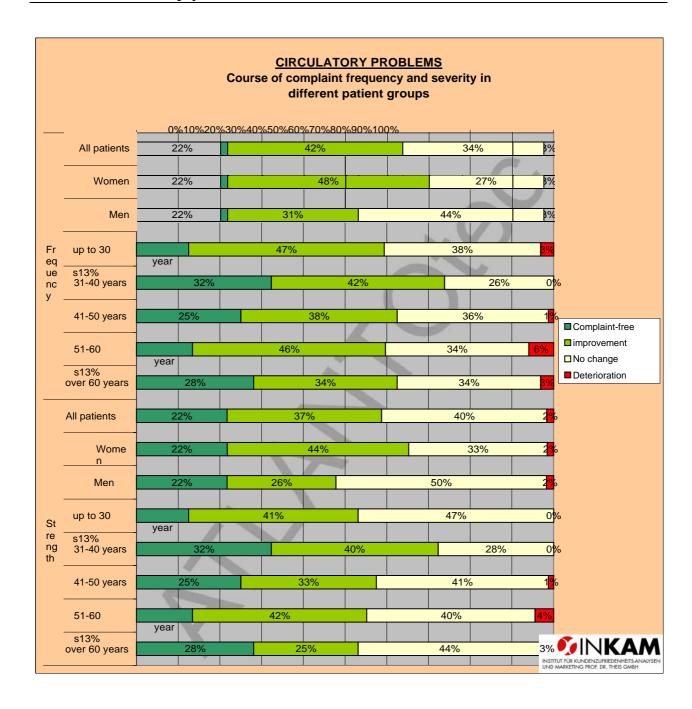
5.10 Nervousn

ess



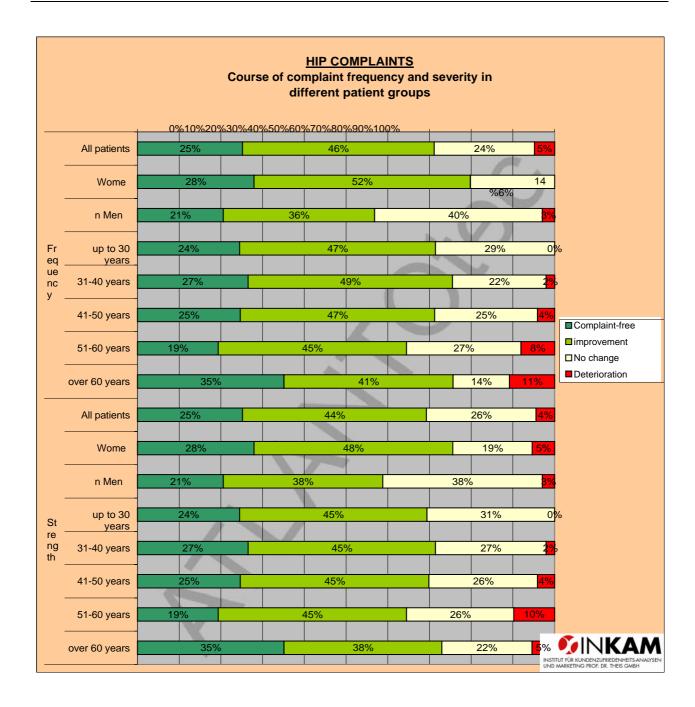


5.11 Circulatory problems



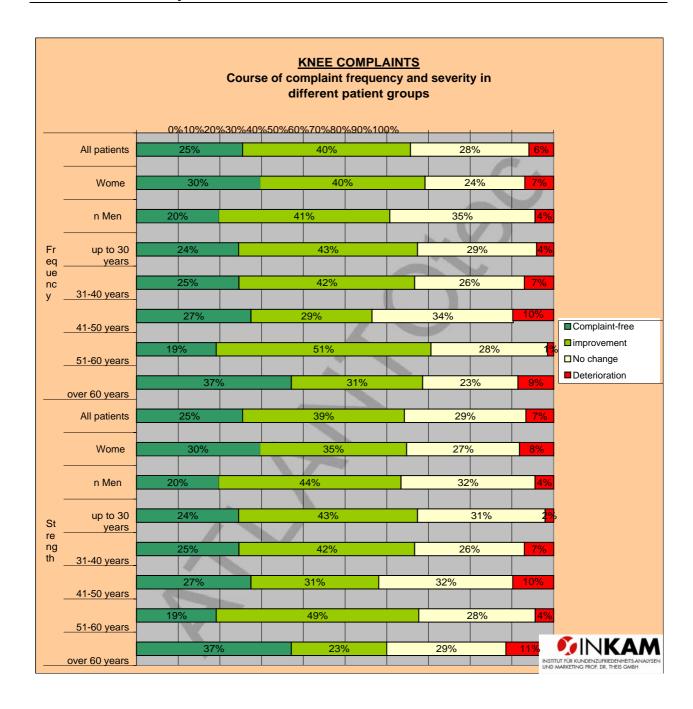


5.12 Hip complaints



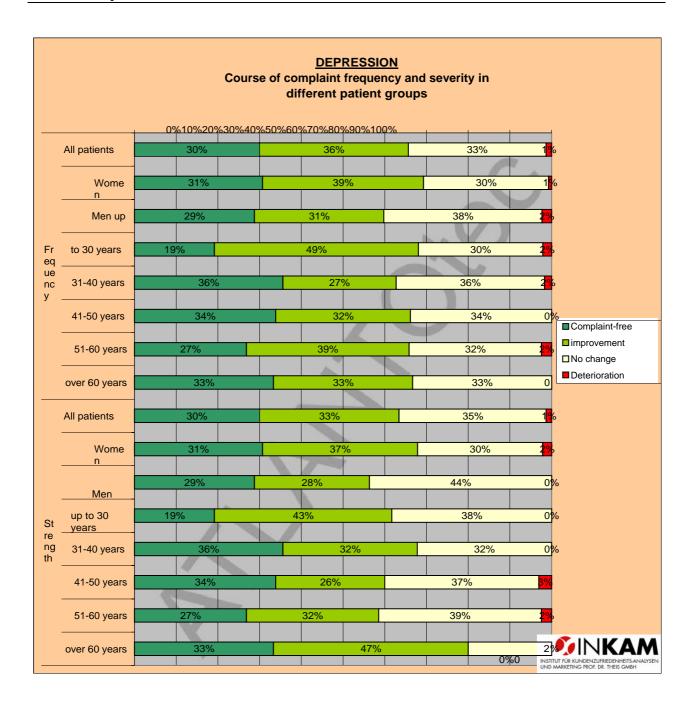


5.13 Knee complaints





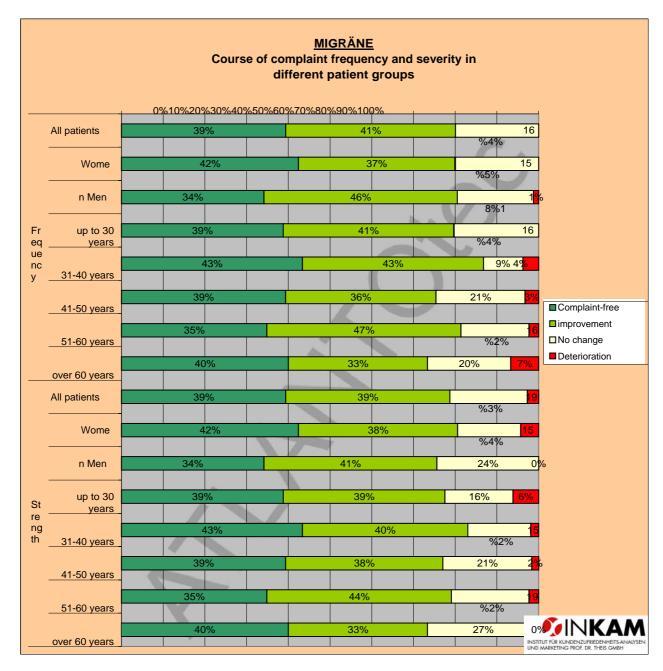
5.14 Depression





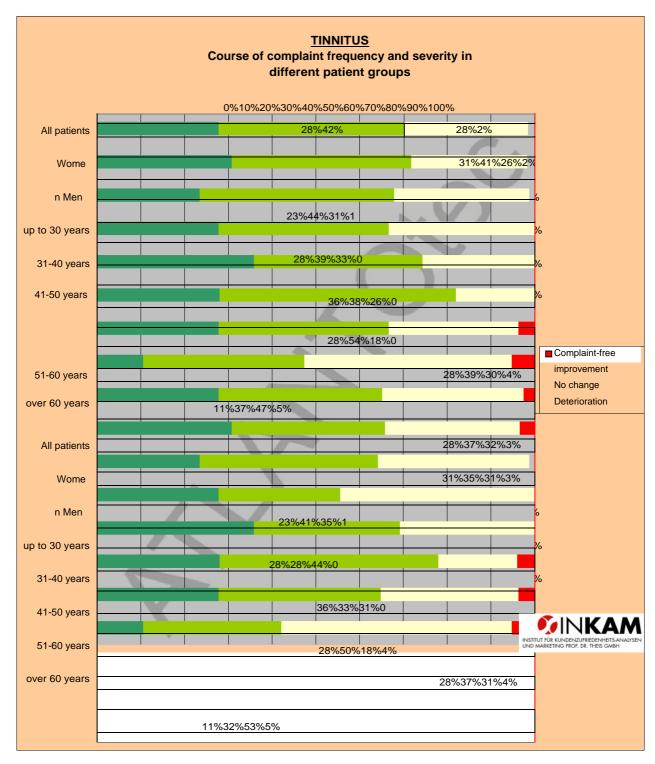
5.15 Migrain

 $\boldsymbol{\epsilon}$



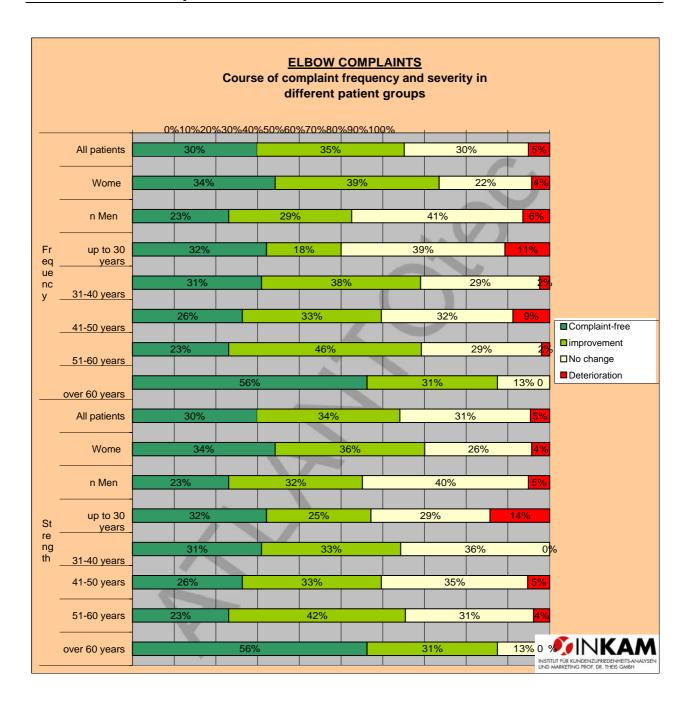


5.16 Tinnitus (ringing in the ears)



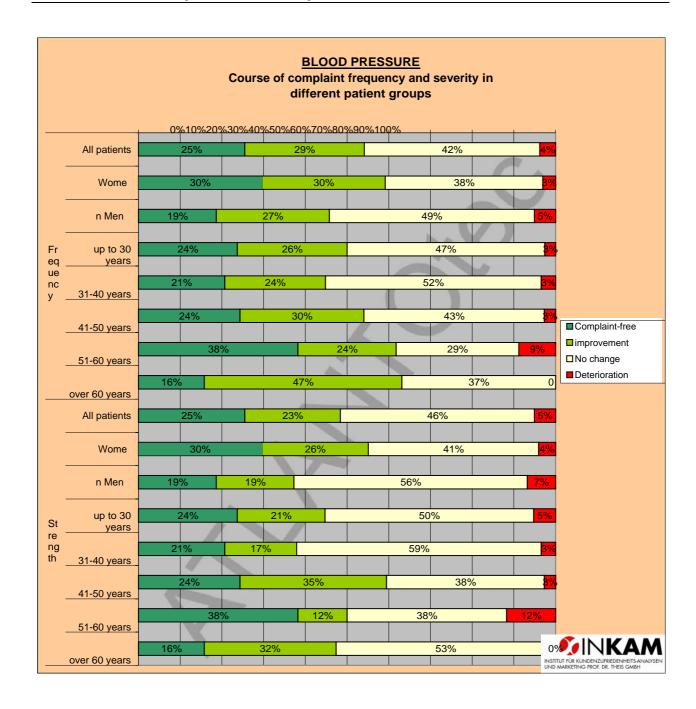


5.17 Elbow complaints





5.18Blood pressure complaints





Annex (questionnaire)

Behandlungs-Datum 21.8.08	A	TLANTO	7tec°			
	Suds 2		34			
Name Vorname Alter Bitte das Feld mit BLAUEM Schreibstift <u>ankreuzen</u> , um den Gesundheitszustand VOR der Behandlung anzugeben. Bitte das Feld mit GRÜNEM Schreibstift einkreisen, um den Gesundheitszustand NACHHER anzugeben.						
BEISPIEL: VOR der Behandlung:		•	Den. □ □ 🕱 □			
Wie beurteilen Sie Ihr Wohlbefinden? Bitte das Formular komplett ausfüllen.						
BESCHWERDEN	HÄUFIGKEIT	STÄ	RKE			
Depression						
Nervosität						
Schlafbeschwerden						
Müdigkeit						
Magen-Darm-Beschwerden						
Kreislaufbeschwerden						
Blutdruck ↑ Hoch ☐ ↓Niedrig ☒						
Kopfschmerzen						
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Tinnitus (Ohrgeräusche) Links☐ Rechts☐	(,x ,000000					
Verspannungen Links⊠ Rechts□			X L L L			
Nackenbeschwerden						
Schulterbeschwerden Links Rechts						
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Kniebeschwerden Links□ Rechts□						
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Sind Sie damit einverstanden, dass dieses Formular anderen K zum Zwecke des Wirkungsnachweises von ATLANTO tec® g		Ja 🌠	Nein □			
dass dieses Formular auf der Internet-Seite von ATLANTO	-	Ja 🕅	Nein 🗆			
dass Ihre Fotos auf der Internet-Seite von ATLANTO IEC® p		Ja 🗆	Nein 🔀			
Unterschrift. J / WWW	. Dan	ke für die l	Mitarbei			

The research report (abridged version) was prepared on behalf of

ATLANTOtec^{®A}

Mr Alfredo Lerro Roosstrasse 61 CH-8832 Wollerau SZ Tel. 0041/(0)43/536 04 78 Mobile: 0041/(0)79/3600 521 www.atlantotec.com

Surveyor



INKAM - Institute for Customer Satisfaction Analysis and Marketing Prof. Dr. Theis GmbH Prof. Dr Hans-Joachim Theis Burgwaldstraße 9 35043 Marburg Tel. 06421/4870180 Fax. 06421/4870181 www.inkam.biz