





# Agenda

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## 1 Abstract

The ATLANTOtec<sup>®</sup> method is a special massage technique for correcting atlas misalignment. In order to be able to statistically record changes in patients' complaints following an ATLANTOtec<sup>®</sup> treatment, two ATLANTOtec<sup>®</sup> practices in Switzerland and Sweden carried out 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 approximately one month after the treatment at a follow-up 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 Kundenzufriedenheits-Analysen und Marketing Prof. Dr. Theis GmbH, Marburg). A total of 504 people, 297 women and 207 men, all aged between 16 and 84, took part in the survey. The degree of accuracy of the survey results is +/- 4.45% (degree of certainty 95.5%).

The following findings were summarised from the study:

- Very few patients came for treatment for just one or two reasons. As a rule, 10 or more areas
  of complaint were stated.
- 74% of all patients were symptom-free one month after treatment in at least one of the areas of complaint they mentioned.
- In terms of complete pain relief, the treatment achieved the greatest success in migraine patients: 39% of all respondents were free of pain (one month) after atlas correction, while a further 43% experienced relief in the frequency and/or severity of their pain.
- Over 85% of all patients surveyed stated that they were symptom-free or had at least noticed a reduction in the frequency and/or severity of their symptoms in the following areas around one month after the ATLANTOtec<sup>®</sup> treatment: Neck pain, headaches and tension.
- At least 7 out of 10 patients surveyed stated that they were symptom-free after ATLANTOtec<sup>®</sup> treatment or had at least noticed a reduction the frequency and/or severity of their symptoms in the following areas: Shoulder complaints, dizziness, migraine, low back pain, fatigue, hip complaints, sleep complaints, tinnitus, depression and gastrointestinal complaints.

The results of the study are available in three versions of different lengths: Research report (130 pages), Research report - short 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.

The ATLANTOtec<sup>®</sup> method is used to correct the misalignment of the atlas. 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 is to release the muscles that clasp the first cervical vertebra in order to allow it to return to the anatomically and physiologically correct position.

A specially developed device is used for the treatment, which pulsates 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 manual massage.

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

The ATLANTOtec<sup>®</sup> method differs significantly from other therapies such as Atlaslogy, Vitalogy, Atlas Therapy according to Arlen or Atlas Orthogonal. No chiropractic adjustments with jerky turns of the head are carried out, nor are any sudden movements made. Instead, the focus is on a deep massage of the neck and back muscles using a specially designed device.

Source: www.atlantotec.com



# 3 Study design

#### 3.1 Objectives and methodology of the survey

In 2008 and 2009, two ATLANTOtec<sup>®</sup> practices in 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<sup>®</sup> treatment.

In detail, the survey was designed find out:

- What complaints do patients come to treatment with?
- For which complaints were patients able to determine a successful treatment? For which complaints is the ATLANTOtec<sup>®</sup> treatment therefore best suited?
- How has the frequency and severity of the complaints changed as a result of the ATLANTOtec<sup>®</sup> treatment?

From a methodological point of view, the survey is a

- Before and after examination: During the period mentioned, all patients were given a questionnaire before treatment in which they were asked to record the frequency and severity of their personal complaints. The questionnaire listed 18 different complaints. In addition, patients were given the option of freely labelling their complaints. In addition, the respondents were asked to state how long it had been since they had been treated and their age. At the follow-up session, which took place approximately one month later, the questionnaire was handed out again with the request to enter the current complaint status.
- Sample study: The survey was conducted in 2008/09 among all patients who were undergoing treatment at that time and who had consented to the survey. The subject 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<sup>®</sup> customers), it is not possible to speak of a complete survey. After all, the focus is not on "all patients who were treated with the ATLANTOtec<sup>®</sup> method".
- Survey participants:: A total of <u>504 questionnaires</u> were analysed. Of all respondents, 297 were female and 207 male. The age of the respondents was between 16 and 84 years.



#### 3.2 Reliability of the test 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 labelling the first answer boxes as "No/no significant complaints" in future surveys (in all questionnaires). In addition, a "No response" category should be introduced.

The degree of accuracy of the survey results can be described as follows: With a degree of certainty of 95.5% (probability of error 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 is to be regarded as perfectly 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.

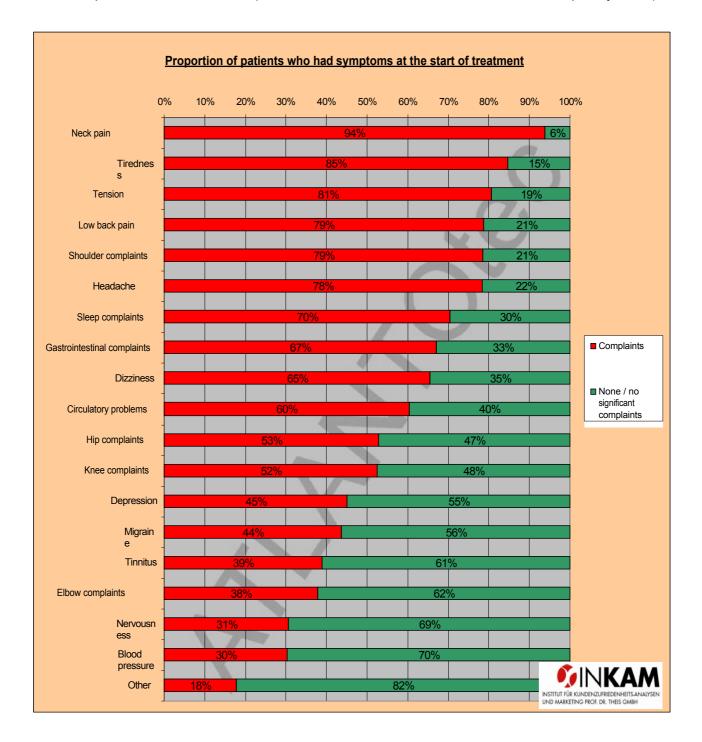


## 4 Survey results at Overview

#### 4.1 Complaint status at the start of treatment

Why do patients come to the ATLANTOtec® practice, i.e. what ailments do they hope to alleviate?

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





#### Survey result:

At the start of treatment, patients name an average of around 11 (out of 18 given) different complaints that affect their well-being to varying degrees (frequency/severity) and for which they therefore expect relief from ATLANTOtec<sup>®</sup> treatment.

Neck pain is mentioned by almost all patients.

Over three quarters are plagued by fatigue, tension, back, shoulder and head pain.

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

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

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

The complaints mentioned by the respondents naturally affect patients to varying degrees. For most of the complaints mentioned per person, a rather low frequency/intensity is stated (cf. the analysis 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 intensity.

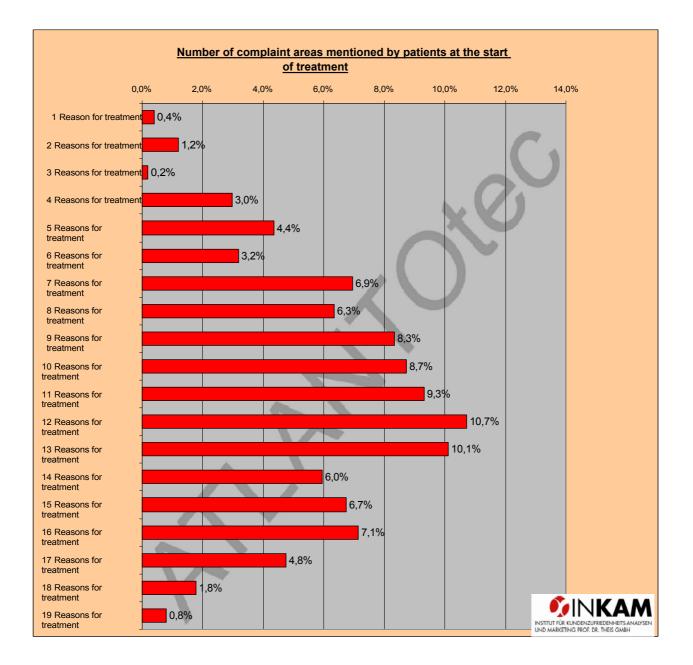
Chapter 3.6. makes clear which complaints these are.



#### 4.2 Number of complaints at Start of treatment

As has become clear, patients generally visit the ATLANTOtec<sup>®</sup> practice for more than just one complaint. On average, around 11 out of 18 complaints are given.

The following illustration shows how many different complaints patients are "plagued" by at the start of treatment.





#### Survey result:

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

On average, patients named around 11 (out of 18 given) different complaints.



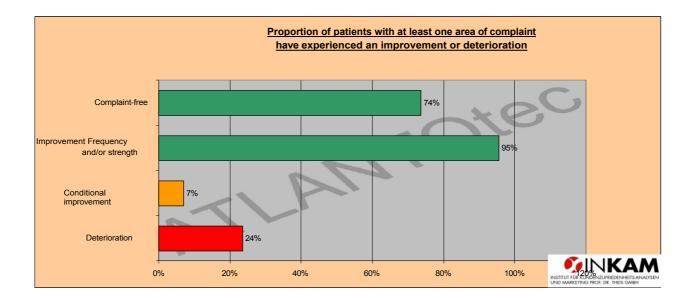
#### 4.3 Treatment outcome general

Patients usually come to the practice with several complaints and hope that the ATLANTOtec<sup>®</sup> treatment will provide relief.

Treatment success can be said to have been achieved if the patient is "symptom-free" in at least <u>area of complaint</u> after approximately one month (the follow-up survey took place after this period) or if there has at least been a noticeable improvement in the frequency and/or severity.

A further result of treatment may be that the patient has experienced a worsening of their symptoms in at least one area.

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



#### Survey result:

Three quarters of all respondents (74%) were symptom-free in at least one complaint area after the ATLANTOtec<sup>®</sup> treatment. An improvement in their well-being (due to a decrease in the frequency and/or severity of symptoms) was observed in at least one of their symptoms by 95% of all respondents.

24% observed a deterioration in at least one area of complaint. In 7%, there was a "conditional improvement" in at least one area of complaint.



#### 4.4 Treatment result across all complaint areas

Previously, it was analysed 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. complaint areas. The following table shows the results for all 19 complaint areas surveyed (18 predefined complaint areas and one "other complaint area").

Number of complaints Areas	Percentage free of complaints	Percentage improvement (with frequency and/or strength)	Share Conditio nal Improvement	Share of 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 the treatment result achieved for any number of complaint areas. For example

- 26,4% in none single complaint area according to the symptom-free after treatment
- 21,4% in one and 16,3% in two complaint areas symptom-free (consequently: 37.8% are symptom-free in up to 2 complaint areas)
- altogetherexperienced23,6% adeterioration.Of these14,5%inone, 5.4% in two and 2.6% in three complaint areas



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

The results described above have shown that the vast majority of patients experienced a general alleviation of symptoms as a result of the ATLANTOtec<sup>®</sup> treatment. It is now necessary to examine how the treatment has affected the well-being of patients with specific complaints.

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

On the other hand, the so-called "conditional improvement" has an intermediate position: In individual cases, the frequency of the symptoms decreases while the severity increases (or vice versa; the severity decreases while the frequency increases). The extent to which we 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 there is even a deterioration in the patient's condition.

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

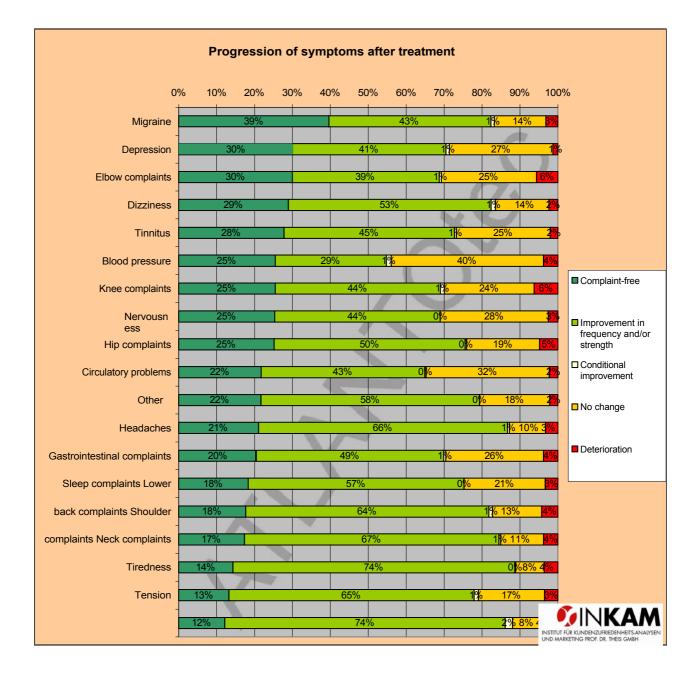
#### Survey result:

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

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

At least seven out of ten patients surveyed stated that they were symptom-free or had at least noticed a reduction in the frequency and/or severity of their symptoms in the following areas around one month after ATLANTOtec<sup>®</sup> treatment: Neck complaints, headaches, tension, shoulder complaints, dizziness, migraines, lower back complaints, fatigue, hip complaints, sleep complaints, tinnitus, depression and gastrointestinal complaints.



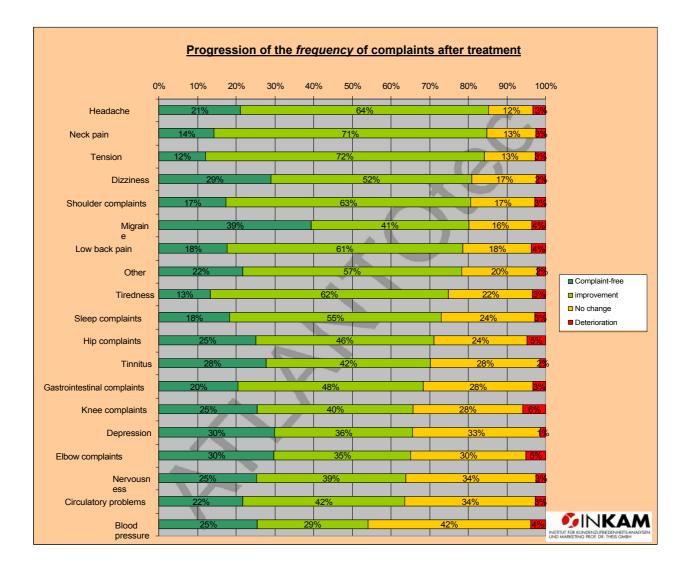




# 4.6 Treatment success for individual complaint areas with regard to the frequency of complaints

The following diagram shows how the ATLANTOtec<sup>®</sup> treatment has affected the <u>frequency of</u> the individual complaints.

The result of treatment can be shown by the fact that patients are free of symptoms after treatment or at least have improved (due to a decrease in the frequency of symptoms). There is also the possibility that no change (unchanged frequency) or a deterioration (due to increasing frequency of occurrence) has occurred.





#### Survey result:

The **ATLANTOtec**<sup>®</sup> treatment led to a reduction in the frequency of complaints in all the areas of discomfort mentioned for the majority of the patients surveyed.

The patients surveyed reported the greatest treatment success in this regard headaches and neck pain; 85% diagnosed themselves with a reduction in frequency or relief from pain.

The treatment was almost as successful with regard to the frequency of symptoms of tension, dizziness, shoulder pain and migraines; 8 out of 10 patients were able to report relief from symptoms or a reduction in their frequency.

In 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 complaint (with the exception of blood pressure problems) in the form of relief from complaints or a reduction in their frequency.

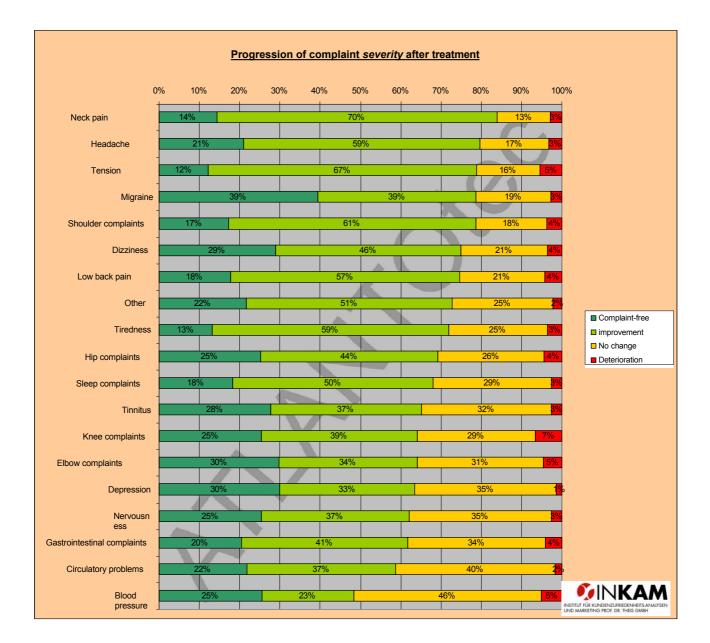
A worsening in the sense of an increasing frequency of complaints was only perceived in a few cases (e.g. 6% for knee complaints).



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

The following illustration shows how the ATLANTOtec<sup>®</sup> treatment has affected the <u>severity</u> of the individual complaints.

Treatment results are also possible here: No symptoms, improvement, no change or deterioration.





#### Survey result:

Overall, the ATLANTOtec<sup>®</sup> treatment has not only reduced the frequency of complaints, but also their severity.

Patients with neck pain were the most likely to notice this. 84% experienced a reduced intensity or relief of symptoms.

The front runner is closely followed by headaches, tension, migraines, shoulder pain, dizziness, lower back pain and fatigue; in over 7 out of 10 patients, the severity of the symptoms has decreased or is no longer present at all.

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



#### 4.8 Average change in the degree of complaint frequency and severity

The result of ATLANTOtec<sup>®</sup> treatment is usually a change in the frequency and/or severity of the symptoms. 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 about the areas of complaint for which the ATLANTOtec<sup>®</sup> 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 complaints</u>, but also their severity has decreased as a result of the <u>ATLANTOtec®</u> treatment.

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

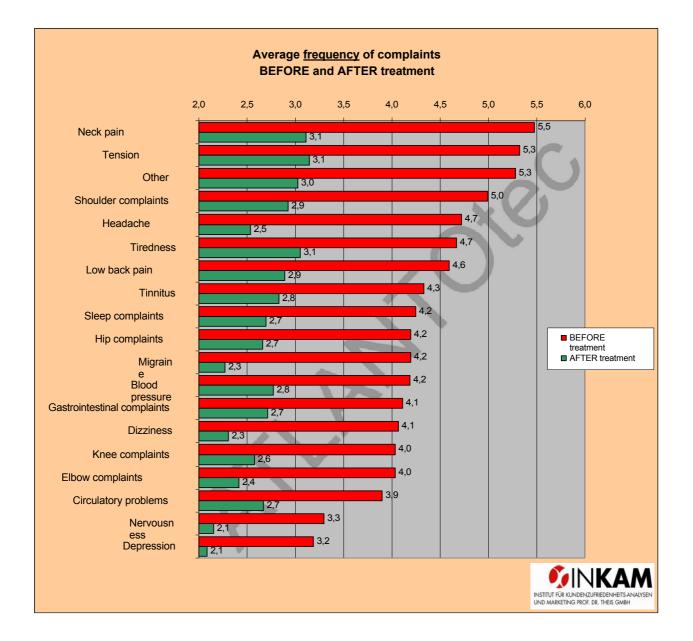
Patients with <u>neck complaints</u> noticed this most clearly: The average frequency of complaints BEFORE the start of treatment was 5.5 on the 7-point assessment scale and 3.1 after treatment (complaint severity at 5.2 and 3.0).

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

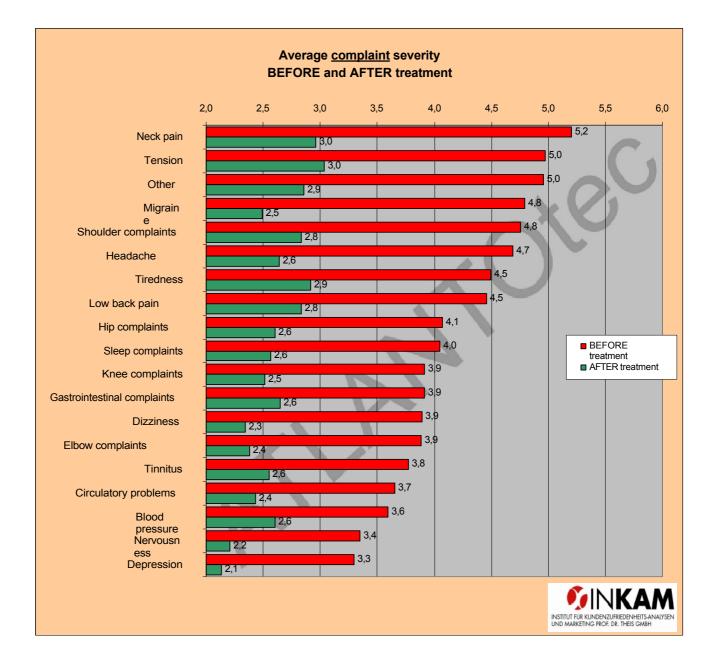
An (average) extremely reduced frequency of complaints after atlas correction was also found for all other areas of complaint.

With regard to the severity of complaints, one result should be emphasised in particular: In the <u>migraine</u> complaint area (average severity on the severity scale: 4.8), the severity was reduced to an average of 2.5 as a result of the atlas correction











# **5** Complaints fields at Details

In the preceding remarks, it became clear that the respondents to the ATLANTOtec<sup>®</sup> treatment were able to attest to a positive course of symptoms treatment for most areas of complaint. The question now arises as to whether different patient groups come to a similar judgement or differ from one another.

When differentiating the judgements, a distinction must be made according to the countries surveyed (ATLANTOtec<sup>®</sup> - practices from Switzerland and Sweden) as well as the gender and age of the patients.

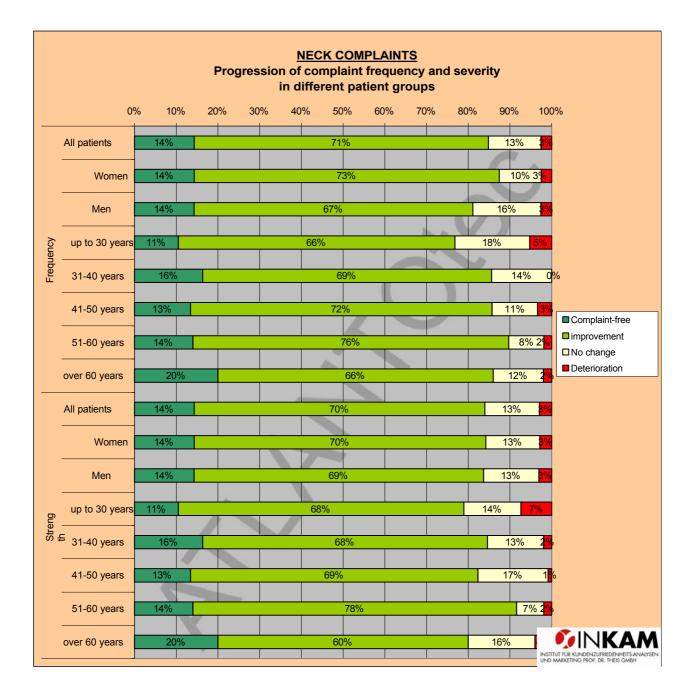
The following illustrations provide information on the progression of symptoms in terms of <u>severity</u> <u>and frequency</u> in those patients who complained of symptoms at the beginning (scale levels 2-7 for frequency and/or severity) and underwent the *ATLANTO*- tec<sup>®</sup> treatment.

In principle, 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 symptoms).
- Furthermore, the result can be an unchanged frequency/strength (no improvement) or a deterioration (due to increasing frequency/strength).

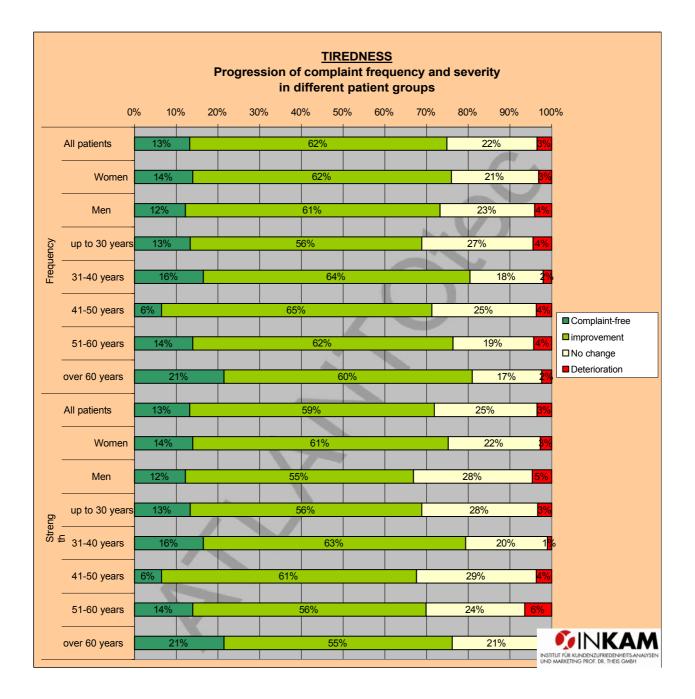


### 5.1 Neck pain



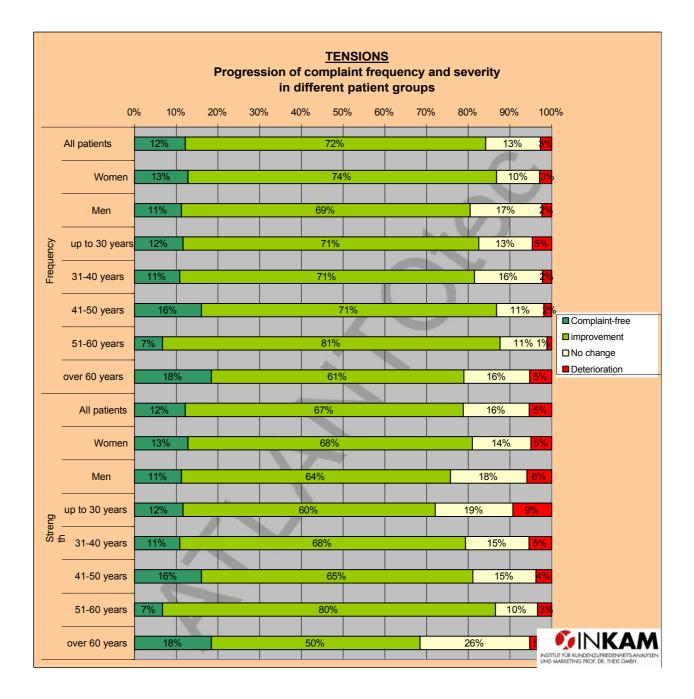


## 5.2 Tiredness



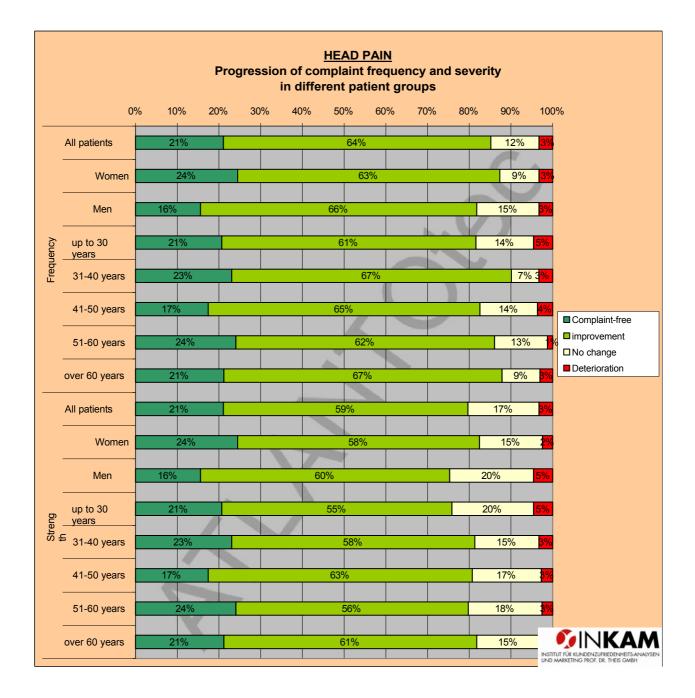


## 5.3 Tension



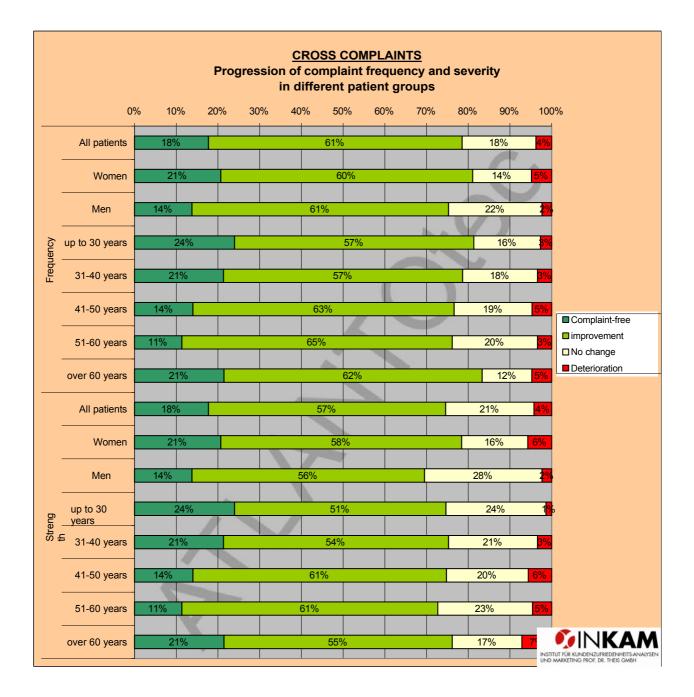


### 5.4 Headache



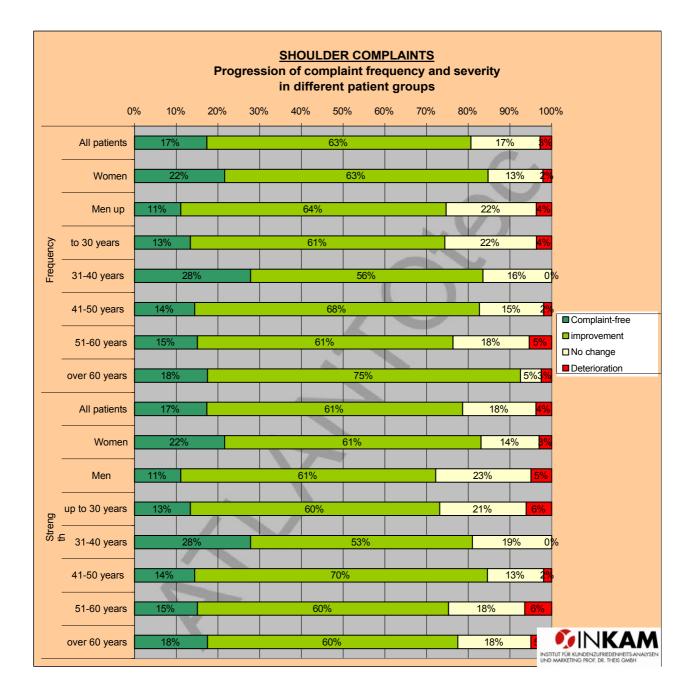


#### 5.5 Low back pain



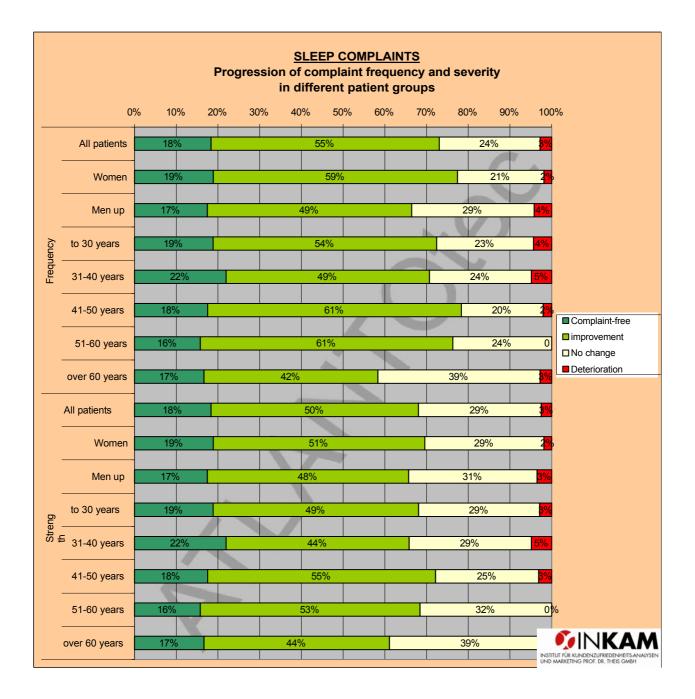


## 5.6 Shoulder complaints



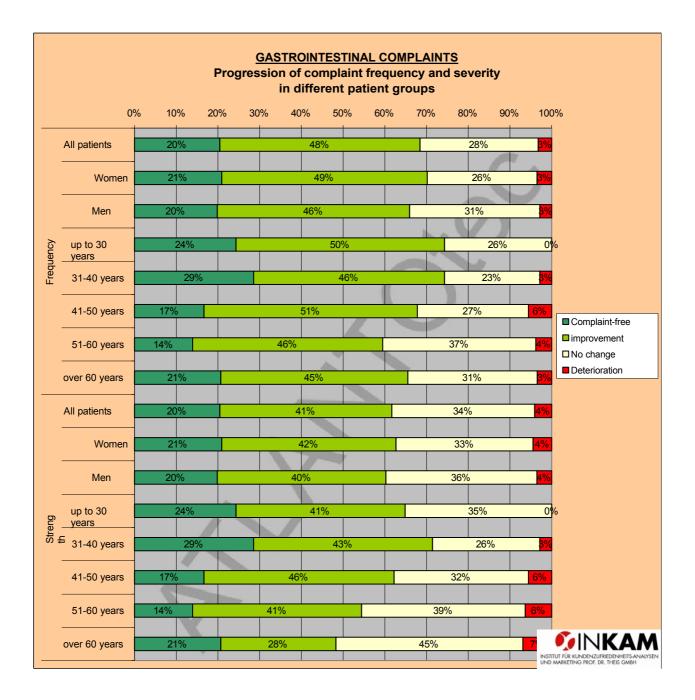


#### 5.7 Sleep complaints



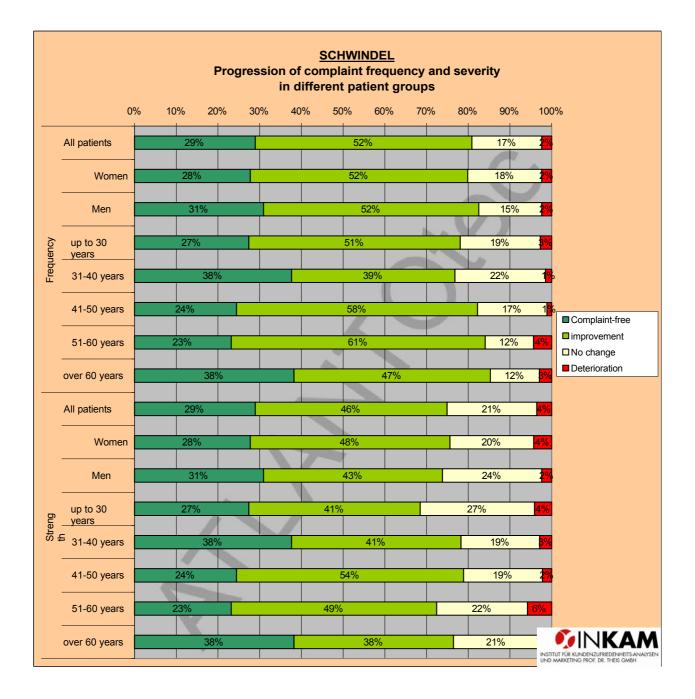


### 5.8 Gastrointestinal complaints



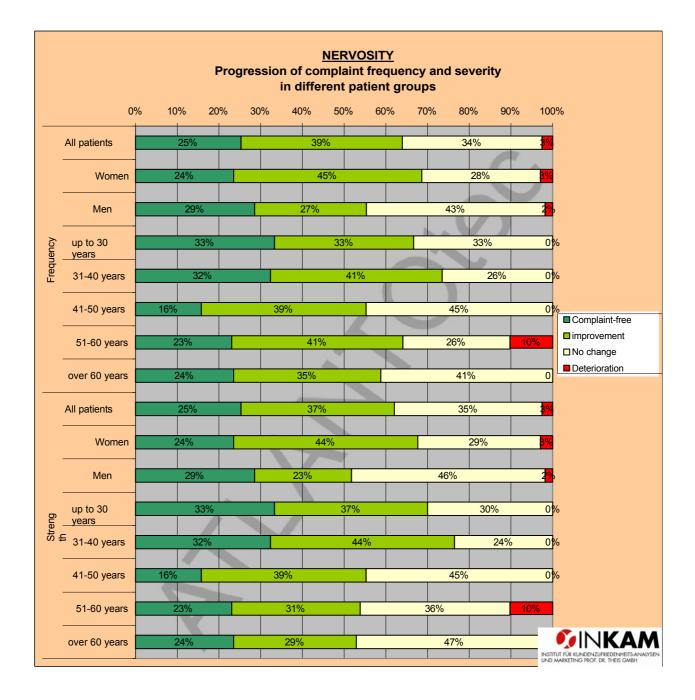


#### 5.9 Dizziness



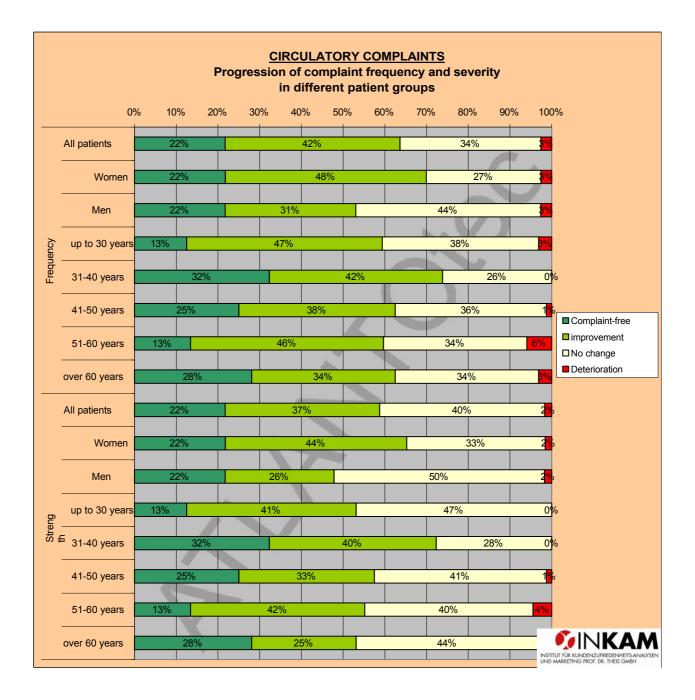


#### 5.10 Nervousness



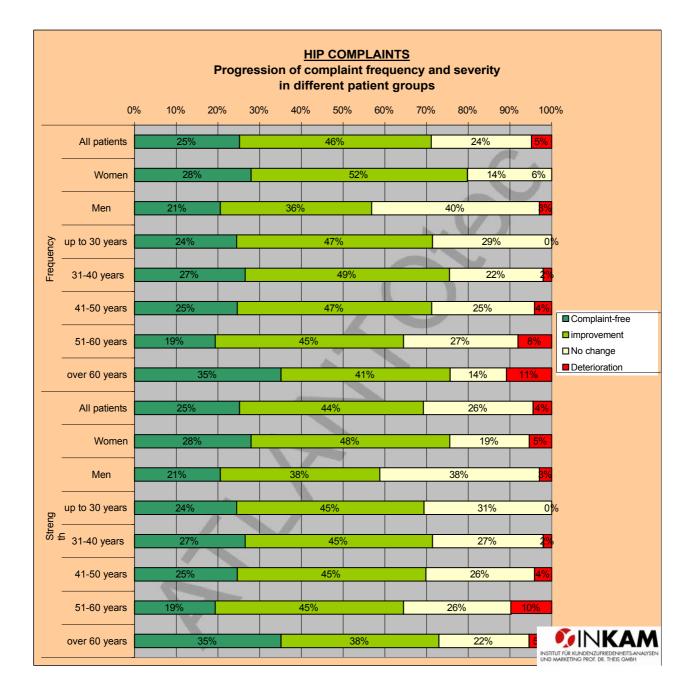


## 5.11 Circulatory problems



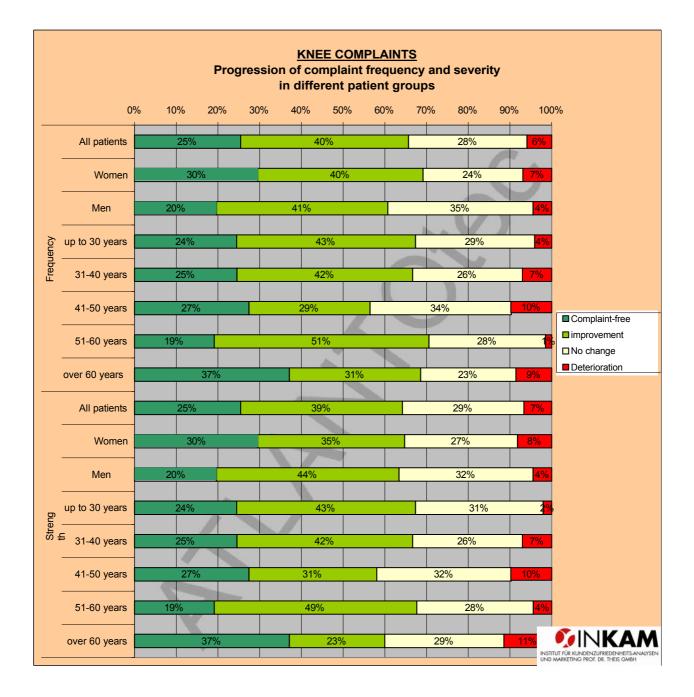


## 5.12 Hip complaints



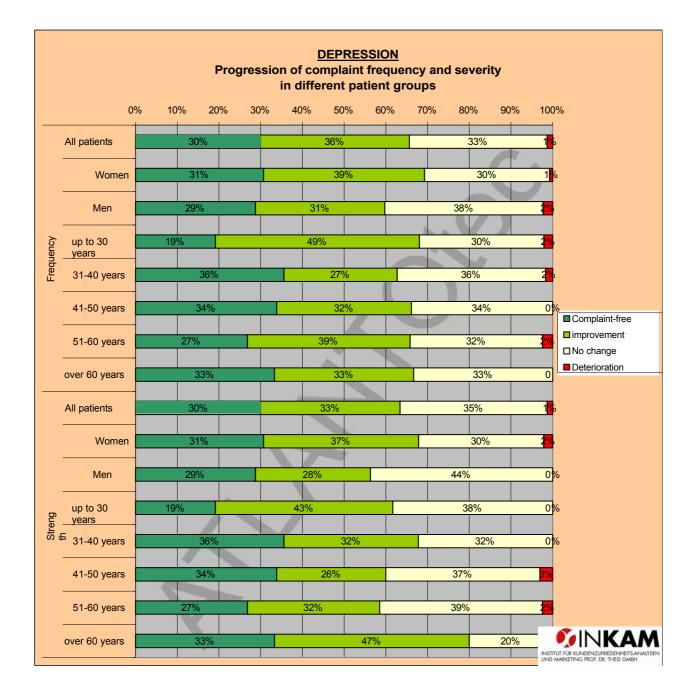


### 5.13 Knee complaints



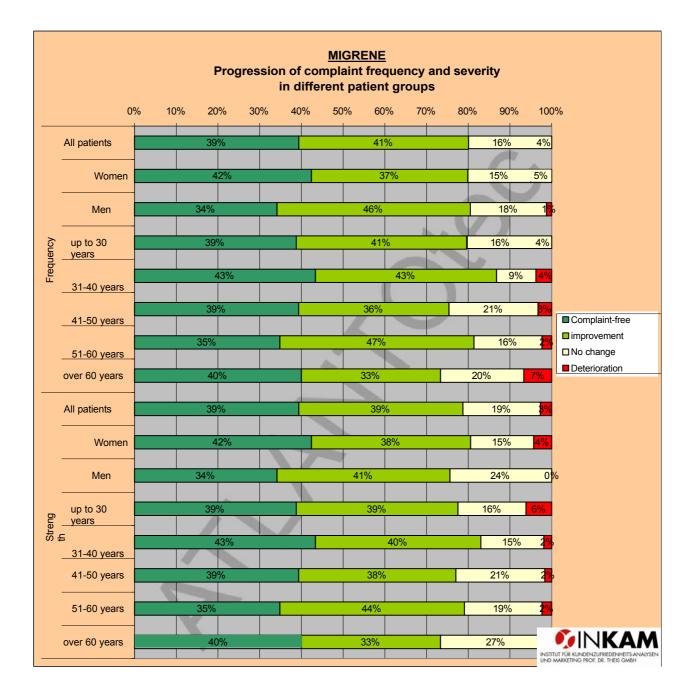


## 5.14 Depression

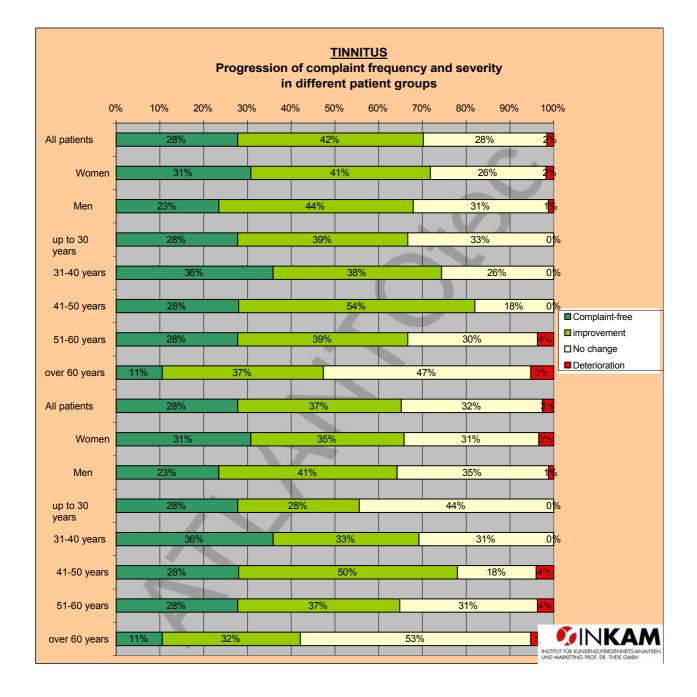




#### 5.15 Migraine



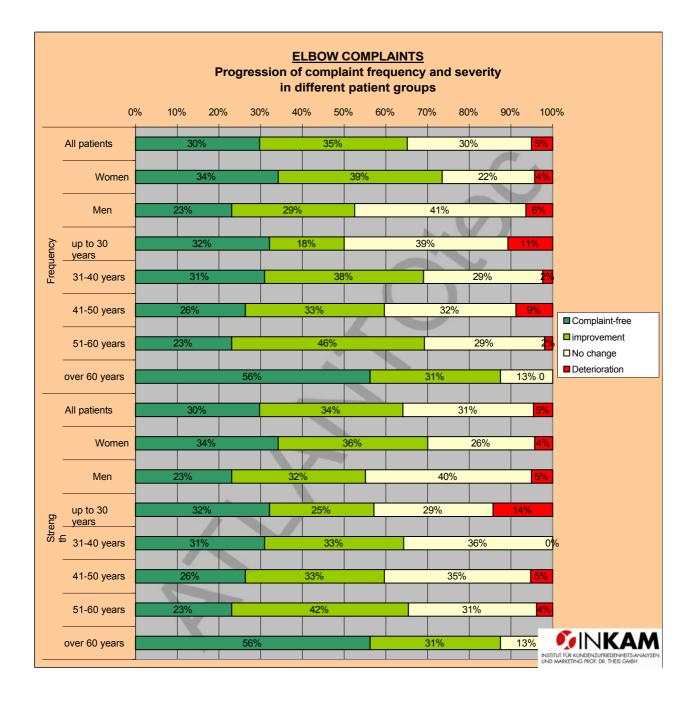




# 5.16 Tinnitus (ringing in the ears)

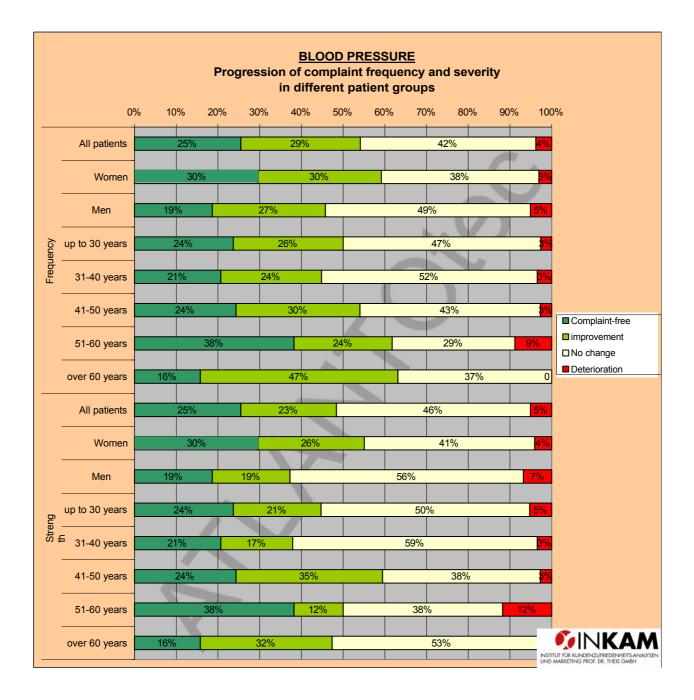


### 5.17 Elbow complaints





## 5.18 Blood pressure complaints





# Appendix (questionnaire)

Behandlungs-Datum	Sandra		34			
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Nervosität						
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Müdigkeit						
Magen-Darm-Beschwerden						
Kreislaufbeschwerden						
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С

# The research report (short version) commissioned by

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