

FORCE 118-26936.70

### **RESULTS**

# Field Trial at Kongsberg Maritime using Back App Equipment Baseline, 6 weeks & 6 months follow up surveys

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|-------------|---|--|------------|--------------|--------------|--|
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## Field Trial with employees at Kongsberg Maritime, using Back App Equipment

The data presented here came from a field trial in the company Kongsberg Maritime, Sweden. The field trial consists of 3 surveys, one prior to the use of Back App 2.0 and Back App 360, and two follow up surveys. The First follow up was performed after 6 weeks and the Second follow up after 6 months.

When reading this presentation, it is highly recommendable to have a copy of the questionnaires at hand. Due to the nature of the survey design, some questions did vary in their formulations across the Baseline, First and Second follow up.

All participant's responses to all questions will be presented here, and it is important to demonstrate caution on the interpretation of the results and possible trends spotted. The limitations in interpretations are presented at the relevant tables below, but throughout this field trial no control group has been part of the investigation, clearly making it difficult to identify a full picture of influencing variables (confounders) on the response patterns seen. It is quite likely that other factors than the use of Back App equipment are causing the trends presented here.

## Background data

Initially the field trial included 67 employees, but for various reasons 10 of them have been excluded from the study, leaving 57 participants, whom have all completed the BASELINE, FIRST FOLLOW UP (after 6 weeks) and the SECOND FOLLOW UP (after 6 months).

As shown, most of the participants are female:

|        | No. of participants | Percent |
|--------|---------------------|---------|
| Female | 33                  | 57,9    |
| Male   | 24                  | 42,1    |
| Other  | 0                   | 0,0     |
| Total  | 57                  | 100,0   |

The average age is 45 years, the youngest being 26 years and the oldest 62 years old.





Most of the participants indicate their height as being between 160 cm and 182 cm:

|                        | No. of participants | Percent |
|------------------------|---------------------|---------|
| Lower than 160 cm      | 3                   | 5,3     |
| Between 160 and 182 cm | 37                  | 64,9    |
| Taller than 182 cm     | 17                  | 29,8    |
| Total                  | 57                  | 100,0   |

All participants indicate their weight as being between 50 and 125 kg:

|                       | No. of participants | Percent |
|-----------------------|---------------------|---------|
| Less than 50 kg       | 0                   | 0,0     |
| Between 50 and 125 kg | 57                  | 100,0   |
| More than 125 kg      | 0                   | 0,0     |
| Total                 | 57                  | 100,0   |





# Which type of chair did people use prior to the field trial?

At the baseline measure, we asked people the following question:

| period?   |
|---|
| One choice only.                                  |
| Standard office chair with back rest              |
| Standard office chair with back rest and arm rest |
| Elevated office stool with foot ring              |
| Perching stool                                    |
| Other (please specify)                            |
|   |

The responses are shown in the following table:

|  | No. of participants | Percent |
|--|---------------------|---------|
| Standard office chair with back rest         | 9                   | 15,8    |
| Standard office chair with back and arm rest | 44                  | 77,2    |
| Elevated office stool with foot ring         | 4                   | 7,0     |
| Perching Stool                               | 0                   | 0,0     |
| Total  | 57                  | 100,0   |





## How do participants rate their old chair?

We also asked them to rate their old chair:



The responses where:

|                          | No. of participants | Percent |
|--------------------------|---------------------|---------|
| Very comfortable, good   | 6                   | 10,5    |
| Quite comfortable        | 20                  | 35,1    |
| Comfortable, fair        | 25                  | 43,9    |
| Quite uncomfortable      | 5                   | 8,8     |
| Very uncomfortable, poor | 1                   | 1,8     |
| Total                    | 57                  | 100,0   |

Note that **6 people** rate their chair as either "quite uncomfortable" or "Very uncomfortable". Using a chair with that experience for many hours every day should raise concern.





## How many hours do you sit during a normal work day?

This question varied slightly from BASELINE to FIRST and SECOND FOLLOW UP Please refer to the questionnaire printouts for inspection of the questions asked.

| hink of a normal/a  | verage work day: |           |                   |  |  |  |  |  |  |
|---|------------------|-----------|-------------------|--|--|--|--|--|--|
| How many hours per day are you SITTING at your computer work station? |                  |           |                   |  |  |  |  |  |  |
| 0-2 hours   | 2-4 hours        | 4-6 hours | More than 6 hours |  |  |  |  |  |  |
| 0   | 0                | 0         | 0                 |  |  |  |  |  |  |

|                   | No. of participants<br>BASELINE | Percent | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|-------------------|---------------------------------|---------|--|---------|---|---------|
| 0-2 hours         | 1                               | 1,8     | 2                                      | 3,5     | 9                                       | 15,8    |
| 2-4 hours         | 13                              | 22,8    | 21                                     | 36,8    | 19                                      | 33,3    |
| 4-6 hours         | 30                              | 52,6    | 26                                     | 45,6    | 19                                      | 33,3    |
| More than 6 hours | 13                              | 22,8    | 8                                      | 14,0    | 10                                      | 17,5    |
| Total             | 57                              | 100,0   | 57                                     | 100,0   | 57                                      | 100,0   |

The pattern seen at BASELINE compared to the one seen at the SECOND follow up changed in **a significant way**, which means that participants at the second follow up indicate to spend **fewer hours sitting** by their workstation within the period of having Back App 2.0 at their disposal. This is compared to having their old chair only. *Wilcoxon signed rank test:* Z=-3, 16 p < 0.05 (p = 0.002). However, a cautious interpretation is needed: The formulation of the question at FIRST and SECOND follow up leaves room for a different interpretation. Participants might have answered the question believing they were required to indicate how many hours they spend sitting on the Back App 2.0 only. Maybe they still have their old chair nearby and sometimes use this as their preferred device at the work station. Hours spend on the old chair are not included, which might bring the total hours spend sitting to a higher level than revealed through this question.





## How many hours do you **stand** during a normal work day?

This question varied slightly from BASELINE to FIRST and SECOND FOLLOW UP Please refer to the questionnaire printouts for inspection of the questions asked.

| Think of a normal/average work day: |                  |               |               |                   |  |  |  |  |  |  |
|-------------------------------------|------------------|---------------|---------------|-------------------|--|--|--|--|--|--|
| How many hour                       | s per day are yo | u STANDING at | your computer | workstation?      |  |  |  |  |  |  |
| 0-1 hour                            | 1-2 hours        | 2-3 hours     | 3-4 hours     | More than 4 hours |  |  |  |  |  |  |
| 0                                   | 0                | 0             | 0             | 0                 |  |  |  |  |  |  |

|                   | No. of participants<br>BASELINE | Percent | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|-------------------|---------------------------------|---------|--|---------|---|---------|
| 0-1 hour          | 25                              | 43,9    | 25                                     | 43,9    | 28                                      | 49,1    |
| 1-2 hours         | 16                              | 28,1    | 19                                     | 33,3    | 15                                      | 26,3    |
| 2-3 hours         | 12                              | 21,1    | 8                                      | 14,0    | 6                                       | 10,5    |
| 3-4 hours         | 2                               | 3,5     | 4                                      | 7,0     | 4                                       | 7       |
| More than 4 hours | 2                               | 3,5     | 1                                      | 1,8     | 4                                       | 7       |
| Total             | 57                              | 100,0   | 57                                     | 100,0   | 57                                      | 100     |

In this case, the pattern seen at BASELINE did not change in any significant way, which means that participants at the second follow up indicate to spend the same number of hours standing at their workstation when having Back App 360 at their disposal. Wilcoxon signed rank test: Z=-0,15, p>0,05 (p=0,88). The trend in responses might very well reflect that participants indicate the hours spend on the Back App 360, not including hours spend standing directly on the floor (at 6 weeks and 6 months). Since the formulation of this question at FIRST and SECOND follow up leaves room for different interpretations, the total hours spend standing might be higher than revealed through the table above.





## How **often** have you experienced pain in the upper body?

This question varied slightly from BASELINE to FIRST and SECOND FOLLOW UP Please refer to the questionnaire printouts for inspection of the questions asked.



|                     | No. of participants<br>BASELINE | Percent | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|---------------------|---------------------------------|---------|--|---------|---|---------|
| Never, almost never | 16                              | 28,1    | 21                                     | 36,8    | 26                                      | 45,6    |
| Once a week         | 14                              | 24,6    | 18                                     | 31,6    | 14                                      | 24,6    |
| 2-3 days a week     | 13                              | 22,8    | 14                                     | 24,6    | 12                                      | 21,1    |
| Almost every day    | 14                              | 24,6    | 4                                      | 7,0     | 5                                       | 8,8     |
| Total               | 57                              | 100,0   | 57                                     | 100,0   | 57                                      | 100     |





Looking at the SECOND follow up column, 9 people have moved out of the category "Almost every day" and the number of participants in the "Never, almost never" has increased with 10. The people leaving the highest category are not the same as those entering the lowest, but still: They have all entered a lower category during a period of 6 months while having Back App equipment at their disposal.

To check for the trend of participants experiencing pain in various areas less frequently when using Back App for 6 months (SECOND follow up), we have used the Wilcoxon Signed Ranks Test.

#### How often is pain experienced?

|                       |                | N               | Mean Rank | Sum of Ranks |
|-----------------------|----------------|-----------------|-----------|--------------|
| How often pain        | Negative Ranks | 26 <sup>a</sup> | 18,85     | 490,00       |
| (SECOND) vs How       | Positive Ranks | 9 <sub>p</sub>  | 15,56     | 140,00       |
| often pain (BASELINE) | Ties           | 22 <sup>c</sup> |           |              |
|                       | Total          | 57              |           |              |

- a. How often pain (SECOND) < How often pain (BASELINE)
- b. How often pain (SECOND) > How often pain (BASELINE)
- c. How often pain (SECOND) = How often pain (BASELINE)

The Wilcoxon signed ranks test: Z=-2,96; p<0,05 (p=0,003).

As shown the "negative ranks" = 26, which means that 26 participants have indicated to experience pain **less frequently** after using Back App for 6 months compared to their frequency of pain experience prior to the use of Back App equipment. 22 participants experience no difference and 9 participants a higher frequency in pain experiences. The tables tell us nothing about the 'amount' or level of pain experienced. However, this is a statistically significant result (as opposed to a random pattern) and it could indicate, that a fair amount of people at Kongsberg Maritime (46%, 26 out of 57) tend to experience pain **less frequently** in the upper body when using Back App for 6 months, compared to the use of ordinary office chairs.

At Baseline we ask people to think back 6 months and this might have an influence on the accuracy of the given responses since it is harder to remember the "history of pain" through 6 months without reminders along the way, rather than through 6 months, where attention for each participant is more focused on bodily pain, due to the participation in the field trial. Also, this field trial does not involve a control group, leaving room for uncertainty in the interpretation of where the less frequently experienced pain stems from (e.g. organizational changes, other work environment changes). Still: **The trend is the same whether we ask people after 6 weeks or 6 months**.





## The experienced level of lower back pain

This question varied slightly from BASELINE to FIRST and SECOND FOLLOW UP Please refer to the questionnaire printouts for inspection of the questions asked.

| o you experie      | nce lower back pa           | un during a nor      | mat work week?                    |                             |
|--------------------|-----------------------------|----------------------|-----------------------------------|-----------------------------|
| No lower back pain | Very little lower back pain | Some lower back pain | Quite a bit of lower<br>back pain | A lot of lower back<br>pain |
| 0                  | 0                           | 0                    | 0                                 | 0                           |

Note that this question (at BASELINE) aims to the level of experienced pain in the lower back in general, and not with reference to the "past 6 months". The responses were:

|                                | No. of participants<br>BASELINE | Percent | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|--------------------------------|---------------------------------|---------|--|---------|---|---------|
| No lower back pain             | 17                              | 29,8    | 19                                     | 33,3    | 21                                      | 36,8    |
| Very little lower back pain    | 19                              | 33,3    | 20                                     | 35,1    | 18                                      | 31,6    |
| Some lower back pain           | 16                              | 28,1    | 17                                     | 29,8    | 12                                      | 21,1    |
| Quite a bit of lower back pain | 3                               | 5,3     | 0                                      | 0,0     | 5                                       | 8,8     |
| A lot of lower back pain       | 2                               | 3,5     | 1                                      | 1,8     | 1                                       | 1,8     |
| Total                          | 57                              | 100,0   | 57                                     | 100,0   | 57                                      | 100,0   |

To check for the trend of participants experiencing pain in the lower back less frequently when using Back App for 6 months (SECOND follow up), we have used the Wilcoxon Signed Ranks Test.

However, when it comes to the experience of lower back pain at Kongsberg Maritime, we found no statistically significant differences from BASELINE to SECOND follow up (*The Wilcoxon signed ranks test:* Z=-0.96; p>0.05 (p=0.34)).





## A significant reduction in the number of painful areas on the body

#### Baseline:

| Which of the following have you experincled pain? Multiple choices allow |             | ng a normal work week that |
|--|-------------|----------------------------|
| Lower back pain/stiffness  | -           | 1 point                    |
| Shoulder and neck pain/stiffness   |             |                            |
| Headaches during or after work   | <del></del> | 1 point                    |
| Arm and/or hand pain   | <del></del> | 1 point                    |
| None of the above  |             |                            |
| Other (please specify)   | Tota        | l: 3 points                |
|  |             |                            |

In this question participants can check several boxes to indicate the number of (and which) painful areas on the upper body. In the example above a participant has indicated three areas, which translates into a "pain score" of three. Thus, it is possible for a participant to achieve a pain score of 0 (zero) through 4. Reviewing the comments made in the "other"-category could of course qualify for an extra point, making it possible to obtain a pain score of 5 as a maximum.





The same question during FIRST and SECOND follow up looked like this:

| This question regards the period you | ı have been                             |
|--------------------------------------|---|
| using Back App 2.0 and Back App 36   | 0.                                      |
| Which of the following have you exp  | erienced during a normal work week that |
| included pain? Multiple choices allo | wed.                                    |
| Lower back pain/stiffness            |   |
| Shoulder and neck pain/stiffness     | 1 point                                 |
| Headaches during or after work       |   |
| Arm and/or hand pain                 |   |
| None of the above                    | Total, 1 point                          |
| Other (please specify)               | Total: 1 point                          |

As was the case with the Baseline questionnaire, participants could make use of several check boxes in the First and Second follow up. The example above shows one participant's follow-up pain score of 1.





#### The points achieved were:

|                | No. of participants<br>BASELINE | Percent | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|----------------|---------------------------------|---------|--|---------|---|---------|
| Pain score = 0 | 7                               | 12,3    | 16                                     | 28,1    | 15                                      | 26,3    |
| Pain score = 1 | 21                              | 36,8    | 21                                     | 36,8    | 21                                      | 36,8    |
| Pain score = 2 | 12                              | 21,1    | 14                                     | 24,6    | 15                                      | 26,3    |
| Pain score = 3 | 15                              | 26,3    | 6                                      | 10,5    | 3                                       | 5,3     |
| Pain score = 4 | 2                               | 3,5     | 0                                      | 0,0     | 3                                       | 5,3     |
| Pain score = 5 | 0                               | 0,0     | 0                                      | 0,0     | 0                                       | 0,0     |
| Total          | 57                              | 100,0   | 57                                     | 100,0   | 57                                      | 100,0   |

At **BASELINE**, 7 participants indicated to be without any pain (Pain score = 0) in the upper body during a normal week. At **SECOND** follow up, this has changed to 15 participants.

The trend clearly seems to be that participants indicate a lower number of painful areas both in the first and second follow up, which is also confirmed in the statistical calculations:





Pain Score: Better, worse or the same?

|                     |                | N               | Mean Rank | Sum of Ranks |
|---------------------|----------------|-----------------|-----------|--------------|
| Pain Score (SECOND) | Negative Ranks | 26 <sup>a</sup> | 18,21     | 473,50       |
| vs Pain Score       | Positive Ranks | 8 <sup>b</sup>  | 15,19     | 121,50       |
| (BASELINE)          | Ties           | 23 <sup>c</sup> |           |              |
|                     | Total          | 57              |           |              |

- a. Pain Score (SECOND) < Pain Score (BASELINE)
- b. Pain Score (SECOND) > Pain Score (BASELINE)
- c. Pain Score (SECOND) = Pain Score (BASELINE)

*Wilcoxon signed ranks test:* Z=-3, 15; p<0, 05 (p=0,002).

As shown the "negative ranks" = 26, which means that 26 participants experience pain in a **fewer** number of upper body areas after using Back App for 6 months compared to their experienced number of painful areas prior to the use of Back App equipment. 23 participants experience no difference and 8 participants a higher number of painful areas. The tables tell us nothing about the 'amount' or strength of pain experienced. However, this is a **statistically significant** result (as opposed to a random pattern) and strongly indicates, that approx. half of the participants at Kongsberg Maritime (46%, 26 out of 57) tend to experience pain in fewer areas of the upper body when using Back App for 6 months, compared to the use of ordinary office chairs. **The trend is the same whether we ask people after 6 weeks or 6 months**.

Since this field trial did not include a control group, caution must be taken when trying to conclude on the causes of the reduction in pain score. We cannot know for sure, whether other factors have contributed to the effect registered (confounding variables). The lower number of painful areas could stem from many other variables, i.e. we do not know what else has happened in the company in question here (Kongsberg Maritime).





# Overview of painful areas indicated

# - Q13 at Baseline and Q11 at 6 weeks and 6 months unfolded

Adding insight to the analysis we have looked at the distribution of painful areas indicated by the participants:

|                                    | No. of participants<br>BASELINE | Percent of 57 participants | No. of participants<br>FIRST follow up | Percent of 57 participants | No. of participants<br>SECOND follow up | Percent of 57 participants |
|------------------------------------|---------------------------------|----------------------------|--|----------------------------|---|----------------------------|
| Shoulder and neck pain/stiffness   | 34                              | 59,6                       | 19                                     | 33,3                       | 23                                      | 40,4                       |
| Headaches during or after work     | 22                              | 38,6                       | 12                                     | 21,1                       | 15                                      | 26,3                       |
| Lower back pain/stiffness          | 25                              | 43,9                       | 21                                     | 36,8                       | 21                                      | 36,8                       |
| Arm and/or hand pain               | 14                              | 24,6                       | 8                                      | 14,0                       | 7                                       | 12,3                       |
| None of the above (pain score = 0) | 8                               | 14,0                       | 16                                     | 28,1                       | 15                                      | 26,3                       |

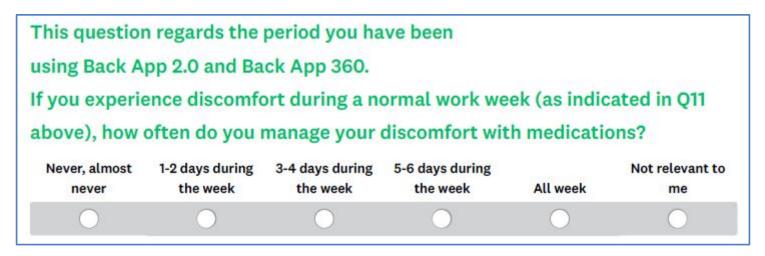
Please note: The sum in each column does not add up to 100 %, since each participant were allowed to select multiple areas on their body.





## The management of pain

This question varied slightly from BASELINE to FIRST and SECOND FOLLOW UP Please refer to the questionnaire printouts for inspection of the questions asked.



#### Responses to this were:

|                          | No. of participants<br>BASELINE | Percent | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|--------------------------|---------------------------------|---------|--|---------|---|---------|
| Not relevant to me       | 8                               | 14,0    | 6                                      | 10,5    | 4                                       | 7       |
| Never, almost never      | 40                              | 70,2    | 43                                     | 75,4    | 40                                      | 70,2    |
| 1-2 days during the week | 8                               | 14,0    | 7                                      | 12,3    | 10                                      | 17,5    |
| 3-4 days during the week | 1                               | 1,8     | 1                                      | 1,8     | 2                                       | 3,5     |
| 5-6 days during the week | 0                               | 0,0     | 0                                      | 0,0     | 0                                       | 0,0     |
| All week                 | 0                               | 0,0     | 0                                      | 0,0     | 1                                       | 1,8     |
| Total                    | 57                              | 100,0   | 57                                     | 100,0   | 57                                      | 100,0   |

Note that the category "Not relevant to me" is included, so that participants not experiencing any pain or not wanting to answer the question, can give a meaningful answer to this question as well. The pattern in responses across the field trial stays the same, making no additional analysis meaningful.





# How often do you feel tired?

This question varied slightly from BASELINE to FIRST and SECOND FOLLOW UP Please refer to the questionnaire printouts for inspection of the questions asked.

| Frequently/every day | Quite often | Every now and then | Infrequently | Never |
|----------------------|-------------|--------------------|--------------|-------|
|                      |             |                    |              |       |

|                      | No. of participants<br>BASELINE | Percent | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|----------------------|---------------------------------|---------|--|---------|---|---------|
| Never                | 7                               | 12,3    | 3                                      | 5,3     | 6                                       | 10,5    |
| Infrequently         | 21                              | 36,8    | 18                                     | 31,6    | 17                                      | 29,8    |
| Every now and then   | 18                              | 31,6    | 25                                     | 43,9    | 20                                      | 35,1    |
| Quite often          | 9                               | 15,8    | 11                                     | 19,3    | 10                                      | 17,5    |
| Frequently/every day | 2                               | 3,5     | 0                                      | 0,0     | 4                                       | 7,0     |
| Total                | 57                              | 100,0   | 57                                     | 100,0   | 57                                      | 100,0   |

Wilcoxon Signed Ranks Test: Z = -0.71; p > 0.05 (p = 0.48)

Analyzing the data reveals no statistically significant reduction in the frequency with which participants feel tired after a normal work day.





# Rating the ability to work

This question varied slightly from BASELINE to FIRST and SECOND FOLLOW UP Please refer to the questionnaire printouts for inspection of the questions asked.

| The second second | regards the period<br>p 2.0 and Back App | The state of the s |               |      |
|-------------------|--|--|---------------|------|
| During a norm     | al week:                                 |  |               |      |
| How would yo      | u grade your abilit                      | y to work?   |               |      |
| Low               | Somewhat low                             | Moderate   | Somewhat high | High |
|                   |  |  |               |      |

The response pattern from the surveys:

|               | No. of participants<br>BASELINE | Percent | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|---------------|---------------------------------|---------|--|---------|---|---------|
| Low           | 0                               | 0,0     | 0                                      | 0,0     | 0                                       | 0,0     |
| Somewhat low  | 1                               | 1,8     | 0                                      | 0,0     | 0                                       | 0,0     |
| Moderate      | 9                               | 15,8    | 8                                      | 14,0    | 9                                       | 15,8    |
| Somewhat high | 22                              | 38,6    | 15                                     | 26,3    | 14                                      | 24,6    |
| High          | 25                              | 43,9    | 34                                     | 59,6    | 34                                      | 59,6    |
| Total         | 57                              | 100,0   | 57                                     | 100,0   | 57                                      | 100,0   |

No statistically significant trends were found here. If we trust the face value of this (participants experience an **unaffected ability to work** during the field trial).





# Would you like to replace your regular chair to a Back App 2.0?

| Would you like to replace your regular office chair with Back App 2.0 and Back App 360? |
|---|
| Yes   |
| □ No  |

For obvious reasons this question was not asked in the baseline survey, but at the FIRST and SECOND follow up. The response pattern looks like this:

|       | No. of participants<br>FIRST Follow up | Percent | No. of participants<br>SECOND Follow up | Percent |
|-------|--|---------|---|---------|
| Yes   | 39                                     | 68,4    | 40                                      | 70,2    |
| No    | 18                                     | 31,6    | 17                                      | 29,8    |
| Total | 57                                     | 100,0   | 57                                      | 100,0   |

A positive attitude towards a continued use of the Back app equipment is seen in 70 % of the participants.

Of course, the responses given should be seen in the light of "who is paying". The respondents here are not paying for a chair out of their own pocket. Maybe the response pattern would be different if they were to pay themselves.





#### Yes or no - elaborations

| Please help us understand why you selected the answer above: |
|--|
| (why yes or why no)  |
|  |
|  |
|  |

On the following pages we have divided the statements into those stemming from yes or no indications, respectively. Note that all statements (typos and misspellings included) are the originals.

Please, also be aware that even though all statements are numbered, it is not possible to view equally numbered lines of statements as stemming from the same person.

The statements shown are merely included to give a flavor of the thoughts and reflections from the pro- and con-users of Back App equipment.





## Yes – SECOND FOLLOW UP - I would like to replace my regular chair to Back App 2.0

- 1. They help me in being versatile in my position during the day.
- 2. Not replace 100% but a very good complement. The 360 I rarely use
- Lovely to seat on.
- 4. I prefer to use Back App 360
- 5. My office chair is already gone, prefer Back App or standing.
- 6. .
- 7. Allows more movement and active working
- 8. Back app is giving me a better working position and less pain in general.
- 9. Jag sitter bättre och mer rätt.
- 10. Back App 2.0 have reduced my back and neck pain and improved my sitting position
- 11. Better sitting position
- 12. har inte haft ont i nacke och skuldeblad sedan jag började använda stolen. ( får alltid ont när jag är stressad och sitter på en vanlig kontorsstol)
- 13. Sitter bättre. Mindre ont. Ser också över skärmväggarna nu så jag kan växla med ögonen och kolla ut ibland.
- 14. I feel that I sit more "active" with the back than with a normal chair.
- 15. I have less pain by using the Back App compared to before. I did not have very much pain before.
- 16. Jag upplevde mycket mer snärta i axel- och nackpartiet när jag hade min tidiare kontorsstol. Smärtan förekommer bara ibland nu för tiden, så jag tycker att denn
- 17. Even if I feel pain in the back I can also feel that my posture has become better. The chair is much better than my normal chair.
- 18. Even if I still have problems with pain in my nack and shoulders and headaches, the chair and Back App 360 helps me to have less problems and not feel so tired.
- 19. ..and no. I want to have a "normal office chair" too.
- 20. Think it is better for me compared to a regular chair.
- 21. I really like the Back App 360, and I feel a difference when using it compared to not.
- 22. Back App chair give me option and reminder of position and time when working with PC.
- 23. with these tools it is easier to remind myself to sit and stand right and also to switch inbetween sitting and standing more often
- 24. Har haft besvär med rygg tidigare
- 25. Want say both yes and no in question no 15. I experience pain that I didn't have before. But as the same time I believe that this is good for my lower back muscle
- 26. Bättre för kroppen
- 27. I like sitting more straight up and a bit higher than with a common chair





- 28. less pain in the back
- 29. Ryggen känns mycket bättre när jag använder denna stol än ordinarie.
- 30. Dosen't get as tired as before
- 31. I like Back App 2,0, but i'm stiff in the hips, more then Before but I like it more than the regular office chair. I don't need a chair with a backrest
- 32. Less pain in my back
- 33. Maybe because pain in lower back and leg. But I like Back App 360
- 34. Strenghtens and keeps me alert!
- 35. gillar det aktiva sittandet
- 36. Svårt att använda den vid patientbesök då jag upplever den för hög
- 37. Supposed to be better. Didn't have any problems before either.
- 38. Comfortable, easy to use, feels great for my back
- 39. I like my Back App
- 40. Feels good





## No – SECOND FOLLOW UP - I would not replace my regular chair to Back App 2.0

- 1. I don't feel that it is comfortable enough to be used all day. Could be related to the fact that I don't have a desk that can be raised and lowered. I get too tired in my back to use it all day. I can't concentrate fully when I don't feel comfortable.
- 2. i would like to use the back app 360 (stand) but it seems like my stiffness in the hip started when sitting on the chair. I dont know why, if it was because I had wrong settings which caused a tension in that muscle. instead now i use a pilates ball.
- 3. I use the back app chair one or two hours every day, but I tend to slide down on it so my position has not really improved.
- 4. I had high expectations of this kind of active chair because I have suffered from shoulder pain for a while and thought this kind of chair good help me, but unfortunately not. I think the chair is too big and have a "slippery" fabric. I have difficulties to find a good relaxed position to sit.
- 5. I need to sit at the same level as my visiters
- 6. The chair and the backapp 360 is good enough
- 7. I think it works...not just as quickly as I thought.
- 8. I would not like to be with out a conventional chair with back rest.
- 9. I would like to keep Back App 360 but not Back App 2.0 as I find it uncomfortable.
- 10. Because I am less stiff and have less problems with my lower back
- 11. The pain in my legs is new. I do not know if it is conencted to the chair, but I guess it is.
- 12. Because I feel more pain in my shoulders when using Back App 2.0 then when I switch between my regular office chair and stand up on my carpet.
- 13. I will try a couple of weeks more
- 14. Less back pain, but would not like to replace it entirely. I like back support when doing new/damanding tasks.
- 15. Tycker stolen är svår att justera in mot skrivbordet och armarna
- 16. I'm satisfied with this chair compared to a regular chair for work
- 17. Ibland upplever jag ett obehagligt tryck i skrevet som gör att jag behöver hitta en annan sittställning. Att stå är ett alternativ samtidigt som det då påverkar ett ljumskbråck som jag har.





## Please tell us about your experience with Back App 2.0/360

| Please tell us about your experience with Back App 2.0 and Bac | k App 360 so |
|--|--------------|
| far:   |              |
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Again, it makes sense to divide the responses between those in favor of switching chairs and those not keen on the idea.

## Yes – SECOND follow up (elaborations on the general experience with Back App)

- 1. Back App 360 it is more stable (even with the pin quite far out) than I thought it would be, and I find that a good thing. On another balancing board I found it hard to think when constantly balancing... Back App 2.0 the chair is not really a good fit, but a better fit than a regular office chair. The high "ridge" in the middle front pushes the legs apart too much and the shape and material of the chair makes it very warm and sweaty, and the clothes stick on it, so that I always have to c
- 2. Getting hang of the 2.0 and starting to like it. Not so much about the 360
- 3. Only positive.
- 4. Both Back App 2.0 and Back App 360 are far better than my regular office chair
- 5. Great, great to "half sit" combined with standing.
- 6.
- 7. Gives a reason to be standing, hopefully using more muscles, energy and by that be working with smoother body
- 8. Good. The only problem is that I sometimes slide too far forward and get too much pressure between my legs.
- 9. Har fungerat väldigt bra men jag står lite för lite.
- 10. I do not use the 360 that often, I prefere to stand on a softer material and move around a bit





- 11. Good
- 12. bara positivt
- 13. Back App 360 är svår att finna ett bra läge på. Är man inte nöjd så måste man kliva av och flytta lite och kliva på och testa igen.
- 14. I spend a lot of my time in meetings so I sit in conference rooms a lot. Previously I used to to stand a lot when at my desk but now as I can use the back app chair I tend to stand less and still feel active at my desk.
- 15. I feel I have a better body posture using Back App. But using it for a whole day can sometimes be hard. If you for exampel need to sit and read a artical or a book than a normal chair can be better.
- 16. Jag är väldigt nöjd med stolen. Eftersom den är så pass hög blir även steget mellan att variera sittande och stående lättare, den bidrar till mer varierad arbetsställning vilket är positivt.
- 17. The back app 2.0 is good but we need to change our landscape so we get more isolated. I don't prefer the back app 360 since it feels so stiff to stand on and I get really tall in the landscape so I hear everything around me.
- 18. Positive and good.
- 19. Find it hard sometimes to find a comfortable position
- 20. Not bad at all.
- 21. For Back App 360 I like it, I feel a difference from before when I'm using it. I don't like Back App 2.0 as much, I feel that I easily can cheat with the posture and I don't realise it until after a while, quite similar to an ordinary chair.
- 22. Much better than regular chair.
- 23. sometimes I forgot to sit straight in back due to no backsupport but in general the tools suited me and the way I work well. It helped me to remind to switch between sitting and standing during working day. It made it tough to sit with the legs crossed over eachother which is good for the back.
- 24. Bra
- 25. We don't really get along with each other... yet
- 26. Bättre för kroppen
- 27. I like the chair, but my desk is so low in highest position to use
- 28. Good and make it possible to change the load on the back and shoulders.
- 29. Är väldigt nöjd
- 30. I have good experience with Back App 2.0, feel better in my neck.
- 31. I like it more and more, but i can be better using the Back App 360
- 32. Just good vibes! Less pain in my back and also in my head. I sit very comfortable on my BAck App
- 33. It has been very nice and I like Back App 360 very much!
- 34. Very good!





- 35. positivt, en del träningsvärk efter sommaruppehållet
- 36. nöjd
- 37. Good, but I don't like the one I stand on.
- 38. Good
- 39. Sits very nice when I work
- 40. Like it

## No – SECOND follow up (elaborations on the general experience with Back App)

- 1. I think it is good as a complement to a regular chair, but for me it just doesn't work to use all day long. I can see that it can be good for people with back problems, but for me it just feels incomfortable. Maybe I would use it more often if I had a desk that can be lowered and raised.
- 2. i love the standing back app, and i did like the sitting chair aswell until my hip got stiff. I might have hade the wrong setting, maybe to high, beacuse it felt like I was gliding of the chair. Specially when I had slippery pants or skirts.
- 3. I use the back app chair one or two hours every day, but I tend to slide down on it so my position has not really improved. I usually change back to my normal chair or continue working standing up.
- 4. Good and bad. Good to at least be able to join and test this kind of chair for a longer time.
- 5. When problems with the genital area is not Back App nice at all, but otherwise it is really good.
- 6. Good, but does not replace the chair, and having both is not an option
- 7. Alternating between standing and sitting works best.
- 8. It is good but still not willing to leave my old chair
- 9. Se answer above
- 10. I love the stadning plate. It is great and easy to use. the chair is also good and the only problem I have is my posture and that that is dependent on my weak core- but anyway I sit better in on the chair than in an ordinary one
- 11. It is quite OK, but sometimes I miss my normal chair, so I switch in between. It is not good when you sit in an open landscape with low walls in between. It gets more noicy, so the walls should need to be higher.





- 12. Find it difficult to get a relaxed position on the Back App 2.0. Like to have my feet on the floor, which is difficult on Back App 2.0. Regarding Back App 360, I have not used it so much at all. I like to move my feet when I stand up, and the Back App 360 has to small area to have different kind of stand up positions.
- 13. I end upp leaning on my desk. Need to remember myself all the time to sit up
- 14. It's been great!
- 15. Om jag inte sitter i en rak position med rumpan långt bak så gör det ont i svanken och skinkorna.
- 16. So far so good. I feel that I have a better posture during sitting, though I sometimes feel stiffness in the but. But that is very infrequently and more seldom now than in the beginning of this period of testing the chair
- 17. +Bra stol ur perspektivet att det blir ett mer "aktivt" sittande. +Kortare väg till att stå en stund. "Man står ju nästan redan" Något obekväm ur skrevperspektivet

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