

## EFFECT OF ACUFIRST® MEMORY STIMULATION BRACELET ON MEMORY TROUBLES

**Author:**



**Dr Michel LE FAOU**

A handwritten signature in blue ink, consisting of a long horizontal stroke followed by a stylized, cursive flourish.

*Laureate from the Medicine Faculty of Paris XII  
Laureate from the National Academy of Medicine*

*Practitioner – Associate to Physical Medicine Department at the Hotel-Dieu(Paris)*

*Vice president of the SMAC : Chinese Acupuncture Medicine Society*

*CE of the AECOL : association for the education in Manual-Osteopathy medicine et Natural Medicine*

*CE of GMI : Green Medicine International : humanitarian aid by Natural Medicine*

Date: May 30<sup>th</sup> 2009

CONTENTS

<b>1</b>	<b>STUDY RATIONALE AND EXPERIMENTAL DEVICE .....</b>	<b>4</b>
<b>2</b>	<b>STUDY DESIGN AND INVESTIGATORS .....</b>	<b>5</b>
<b>3</b>	<b>MEMORY TESTS .....</b>	<b>6</b>
<b>4</b>	<b>SUBJECT CHARACTERISTICS .....</b>	<b>7</b>
<b>5</b>	<b>STUDY RESULTS .....</b>	<b>7</b>
5.1	STUDY DATA AND STATISTICAL ANALYSIS .....	7
5.2	EFFICACY ON MEMORY TROUBLES.....	7
5.2.1	<i>Results of Mnemosyne ® tests .....</i>	<i>7</i>
5.2.2	<i>Frequency of use of the ACUFIRST® Memory Stimulation bracelet.....</i>	<i>11</i>
5.2.3	<i>Subjects' global appreciation on efficacy of the ACUFIRST® Memory Stimulation bracelet .....</i>	<i>12</i>
<b>6</b>	<b>DISCUSSION .....</b>	<b>15</b>
<b>7</b>	<b>CONCLUSION .....</b>	<b>15</b>
<b>8</b>	<b>BIBLIOGRAPHY .....</b>	<b>15</b>
<b>9</b>	<b>EFFICACY DATA LISTINGS .....</b>	<b>16</b>

## LIST OF TABLES

<i>Table 1: Subjects' global appreciation on efficacy of the ACUFIRST® Memory Stimulation bracelet ....</i>	<i>12</i>
<i>Table 2: Day-by-day distribution of the Subjects' Global Appreciation on Efficacy of the ACUFIRST® Memory Stimulation bracelet .....</i>	<i>13</i>

## LIST OF FIGURES

<i>Figure 1: Results of Mnemosyne ® tests over time: Total score .....</i>	<i>10</i>
<i>Figure 2: Results of Mnemosyne ® tests over time: "List of Words" .....</i>	<i>10</i>
<i>Figure 3: Results of Mnemosyne ® tests over time: "Patron Saints" .....</i>	<i>10</i>
<i>Figure 4: Results of Mnemosyne ® tests over time: "List of Words" .....</i>	<i>11</i>
<i>Figure 5: Subjects' global appreciation on efficacy of the ACUFIRST® Memory Stimulation bracelet .....</i>	<i>12</i>
<i>Figure 6: Day-by-day distribution of the Subjects' Global Appreciation on Efficacy of the ACUFIRST® Memory Stimulation bracelet .....</i>	<i>14</i>

## LISTE DES LISTINGS

<i>Listing 1 : Individual Data: Subject Characteristics and number of daily connections of the bracelet.....</i>	<i>16</i>
<i>Listing 2 : Individual Data: Results of the Mnemosyne® tests.....</i>	<i>18</i>
<i>Listing 3 : Individual Data: Subjects' Global Appreciation on Efficacy.....</i>	<i>20</i>

## 1 Study Rationale and Experimental Device

Acupuncture, Chinese medical science existing for many centuries, is recognized and well known by the western medical world.

This medicine is based on the evolution of the energy circulating in the human body, conveyed by called ways meridian on the surface of the skin communicating with the internal organs by intermediate ways.

These meridians contain energy points or acupuncture points, the stimulation of which, by needles, by massage or by electric impulsions acts on the behavioural problems of the individual.

These fluctuations in energy represent the evolution of the Yang or the Yin, the Chinese concept of the medicine based on the modifications of these two energies, either in excess, or in deficiency.

There are 14 meridians going through the skin. The channels go from thorax to arms, then from arms to head, then from head to feet, and from feet to thorax following precise schedules according to the solar hour.

The frontside of the wrist is crossed by three meridians, the lung meridian (L), the heart meridian (H) and the master meridian of the heart MH or HS; among these, some points are used to treat specific disorders such as the meridian lung points L7 and L9, the meridian heart points H5, H6, H7 and the master heart meridian points MH6 (HS6), MH7 (HS7).

Heart points H5 (behavioural disorders connected to excesses), H6 + H7 (emotionalism and anxiety) and L7/L9 (respiratory rate and circulatory disorders) are used to treat the stress.

Heart points H5/H6 (rhythm disorders, vago-sympathetic imbalance) and MC7 or HS7 (behavioural disorders, tightness) have effect on the appetite excess

The points H5, MH7 (HS7) and L7/L9 are indicated in the abuse like addiction.

Their use, the whole set of points or individual point, is known to give noteworthy benefits.

As application of these data, the ACUFIRST® Memory Stimulation bracelet, using the technique of stimulation of acupuncture points by electric impulses, was conceived to have effect on the memory troubles. Endowed with a program adapted to these troubles, the ACUFIRST® Memory Stimulation bracelet acts through electric impulses of weak voltage and weak intensity stimulating the specific acupuncture points for this program.

The RISE HEALTH and BEAUTY Ltd Company entrusted us with the realization of a study which objective is to demonstrate the effect of the ACUFIRST® Memory Stimulation bracelet on this disorder of the modern life.

## 2 Study Design and Investigators

Knowing the effects of stimulating acupuncture points by electric impulses and knowing the configuration of the microelectrodes of the ACUFIRST® Memory Stimulation bracelet, we agreed to realize a study on the effect of the bracelet on the memory troubles.

The ACUFIRST® bracelet has a program aimed at improving memory troubles; named "Memory Stimulation".

The location of the bracelet on the right wrist allows the execution of this program.

The study had lasted two months and had been conducted by six therapists, physicians and physiotherapist masseurs, member of the Association for medicine, traumatology and re-education of football for District of Essonne.

Each therapist had to recruit 5 subjects. Finally, 30 subjects had participated in the study and followed the Memory Stimulation program.

On Day 0 (D0), the therapist included the subject in the program, after having explained him/her the objectives and schedule of the study, in order to obtain his/her entire cooperation.

Every subject was seen by the therapist the day of inclusion in the study (D0), then 15 days (D15) and 30 days (D30) later. During every consultation, the subject was subjected to the tests "Mnémosyne ®".

At the end of the inclusion visit, the subject was given an ACUFIRST® Memory Stimulation bracelet and a case report form (CRF).

Every day during 30 days, the subjects were requested

- to run the bracelet several time, and each moment involving the memory every day during 30 days
- to report on the CRF how many time he/she had run the ACUFIRST® Memory Stimulation bracelet
- to report on the CRF his/her opinion on its efficacy according to a 4-point scale:
  - 0 = not effective,
  - 1 = poorly effective,
  - 2 = fairly effective
  - 3 = very effective
- to bring back the CRF at the mid-study visit (D15); during this visit the therapist controlled that the subject has used the bracelet as he/she was instructed to, and that the CRF was correctly filled in
- to bring back the CRF entirely filled in t the final visit (D30).

The recruitment had turned out easier than anticipated, as the population was made sensitive in subjects involving the memory.

Apart two subjects, the other 28 subjects included in the study had complied with all instructions provided by the therapists:

- they had used the bracelet for the planned 30 days,
- they all filled in correctly and completely the CRF.

The subject motivation can be emphasized; it had permitted to collect data of good quality.

Michel Le Faou, MD, supported by a statistician, carried out the statistical analysis.

### 3 Memory Tests

The Mnemosyne ® test was chosen to assess the subject's memory. It is composed of three items:

- two questions:
  - one relatively simple question which makes reference to the characters of the childhood
  - the other question is part of the general knowledge
- one exercise of memorization from a list of words the the subject has to read twice.

#### Question 1

**Wording:** What are the names of the 7 dwarfs?

**Answers:** Atchoum (=Sneezy) – Dormeur (=Sleepy) – Grincheux (=Grumpy) – Joyeux (=Happy) – Prof (=Doc) – Simplet (=Dopey) - Timide (=Bashful)

**Quotation:** 2 points for every good answer – 20 points for 7 good answers.

#### Question 2

**Wording:** What are the Patron Saints of the following countries:  
England, Ireland, Spain, France?

**Answers:** Saint George for England  
Saint Patrick for Ireland  
Saint Jacques for Spain  
Saint Michel for France.

**Quotation:** 4 points for every good answer – 20 points for 4 good answers.

#### Exercise of Memorization

**Wording:** Read twice carefully this list; then without looking at it, write on a paper the maximum of words that come in your memory :  
Casquette (= cap)– Toujours (= always) – Planche (= board) –  
Vigueur (=strength) – Pantalon (=pants) – loisir (=leisure) –  
Montgolfière (=hot-air balloon) – Fièvre (=fever) – Nuage (=cloud) –  
Pénible (=hard) – Assemblée (=meeting) – Décollage (=take-off) –  
Poignet (=wrist) – Montagne (=mountain) – Voisin (=neighbour) –  
Pluie (=rain) – Retard (=delay) – Charrette (=cart) – Cirque (=circus) –  
Mer (=sea)

**Quotation:** 3 points for every remembered word.

#### Interpretation of the total score:

- 86 points and more: Champion
- 76 to 85 points: Satisfactory memory in the short term and the long term
- 61 to 75 points: Good memory but can improve
- 44 to 60 points: Need an effort of necessary concentration to make better
- Less than 44 points: Require a little of training to improve the score.

## 4 Subject Characteristics

Subjects' characteristics appeared to be very interesting. All subjects told as having forgetfulness or lacking concentration in their everyday life.

Two subjects were discarded because they did not comply with the protocol. Thus, the analysis is based on the data of the other 28 subjects.

The majority of subjects were female (16, i.e. 57%). There were 12 men (43%).

The mean ages confirm the homogeneity of the two groups (women and men): 57.5 years (from 45 to 67 years) for men, and 52.5 (from 35 to 69 years) for women.

## 5 Study Results

### 5.1 Study Data and Statistical Analysis

All 28 subjects filled in and brought back their CRF; so there are no missing data (see data listings in section 9).

The evolution of the memory test scores (Mnemosyne®) were summarized:

- first by the mean scores from D0 to D30
- then by the percentages at D0, D15 and D30 of the total scores added up for all subjects, over the maximum total scores, i.e. **560** (=20 x 28) for the “7 dwarfs” question, **560** (=20 x 28) for the “patron saints” question and **1680** (=3 x 20 x 28) for the memorization exercise “list of words”.

We considered as well interesting to present:

- how many times the subjects had run the ACUFIRST® Memory Stimulation bracelet day,
- the distribution of the subjects' global appreciation of efficacy on the 840 number of days of use (i.e. 30 days for 28 subjects)
- the day-by-day summary of the subjects' global appreciation of efficacy.

### 5.2 Efficacy on Memory Troubles

#### 5.2.1 Results of Mnemosyne ® tests

On D0, the subjects were surprised by the tests; it explains the level of the scores at the first tests.

Anyway, the results bring to light an improvement of subjects' performances as they were using the bracelet, globally for all the Mnemosyne® tests (total score, see

Figure 1), as well as for each of the three tests (Figure 2, Figure 3 and

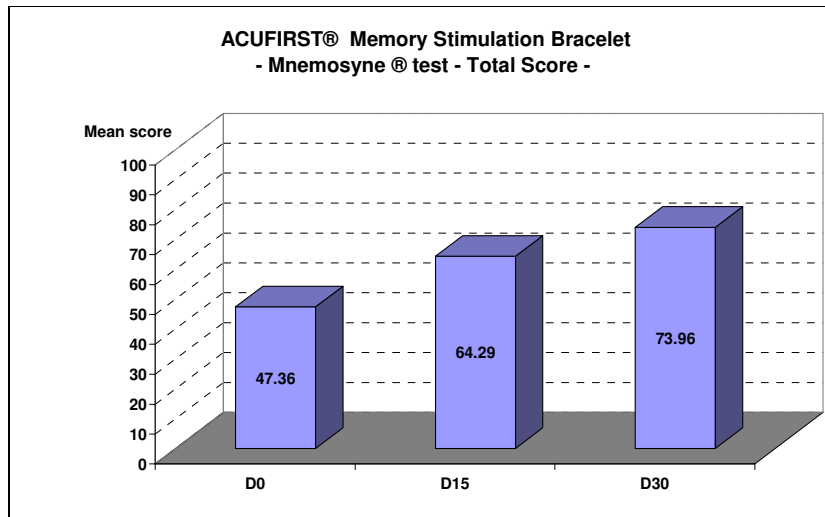


Figure 4), the improvement being more marked for the “Patron Saints” (see Figure 3).

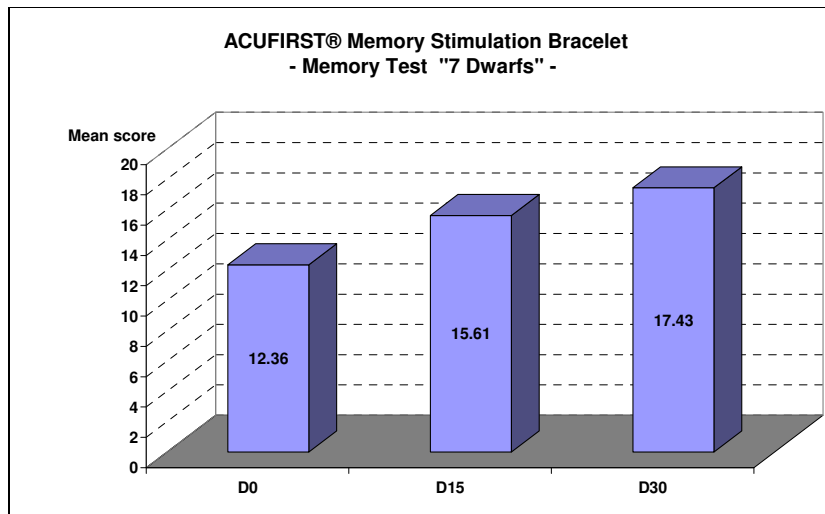
The total score of the 28 subjects increases from D0 to D30:

- D0: 47.36 (level = “Need an effort of necessary concentration to make better”)
- D15: 64.29 (level = “Good memory but can improve”)
- D30: 73.96 (close to the level = “Satisfactory memory in the short term and the long term”).

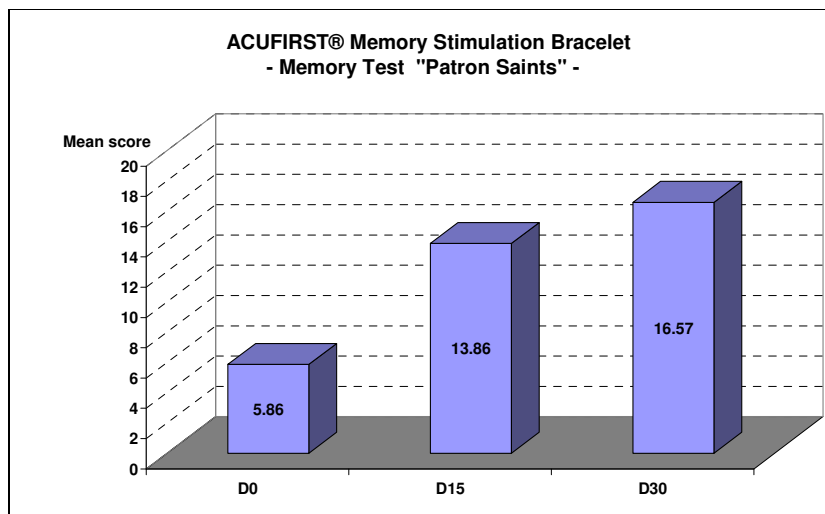
**Figure 1: Results of Mnemosyne ® tests over time: Total score**



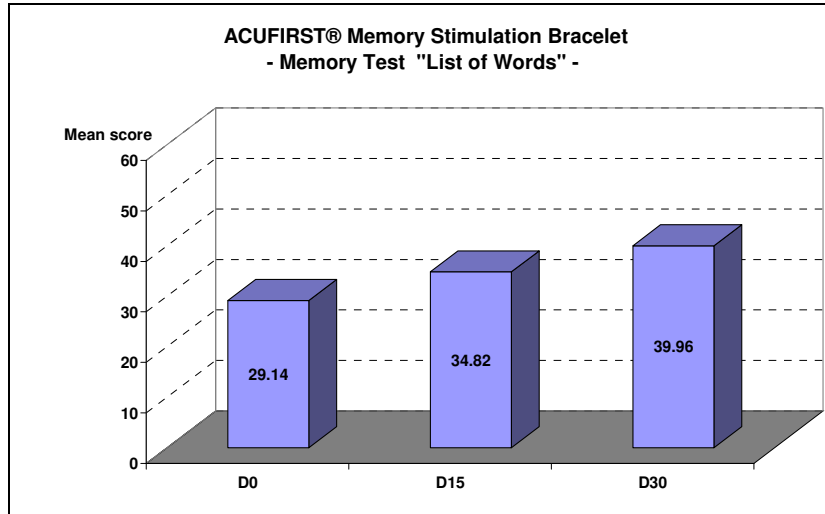
**Figure 2: Results of Mnemosyne ® tests over time: “List of Words”**



**Figure 3: Results of Mnemosyne ® tests over time: “Patron Saints”**



**Figure 4: Results of Mnemosyne ® tests over time: “List of Words”**



In comparison to the maximum total scores (560 for the “7 dwarfs”, 560 for the “patron saints” and 1680 for the “list of words”), progressive increase in performances can be noted from D0 to D15, and from D15 to D30:

- for the “7 Dwarfs” test, the total scores added up for all subjects represented 61% of the maximum total scores at D0, 78% at D15 and 87% at D30
- for the “Patron Saints” test, the total scores added up for all subjects improves also from 29% of the maximum total scores at D0, to 73% at D15 and 82% at D30
- for the “list of words” exercise, the total scores added up for all subjects represented 49% of the maximum total scores at D0, 58% at D15 and 67% at D30.

### **5.2.2 Frequency of use of the ACUFIRST® Memory Stimulation bracelet**

All the 28 subjects had used the bracelet for 840 days in total. The daily mean connection was 11 to 12.7 (see Listing 1), with a minimum of 4 times and a maximum of 21 times.

### 5.2.3 Subjects' global appreciation on efficacy of the ACUFIRST® Memory Stimulation bracelet

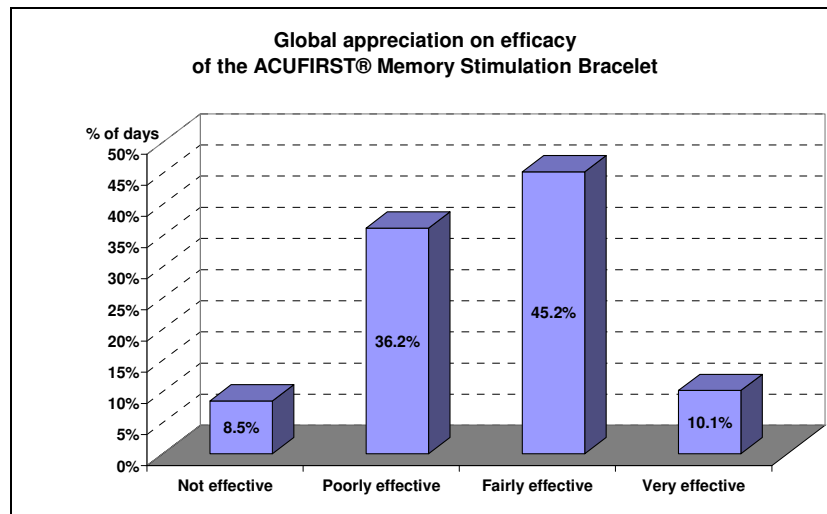
The results of the Mnemosyne® tests confirm a clear trend toward the efficacy of the ACUFIRST® Memory Stimulation bracelet on memory troubles as the subjects considered the bracelet effect as effective for 465 days of use (55.3%) (fairly effective for 380 days - 45.2% - and very effective for 85 days – 10.1% -), as poorly effective for 304 days (36.2%) (see Table 1 and Figure 5).

**Table 1: Subjects' global appreciation on efficacy of the ACUFIRST® Memory Stimulation bracelet**

	<i>n</i> *	%
Not effective	71	8,5
Poorly effective	304	36,2
Fairly effective	380	45,2
Very effective	85	10,1
Total	840	100

\* *n* total number of days of use

**Figure 5: Subjects' global appreciation on efficacy of the ACUFIRST® Memory Stimulation bracelet**

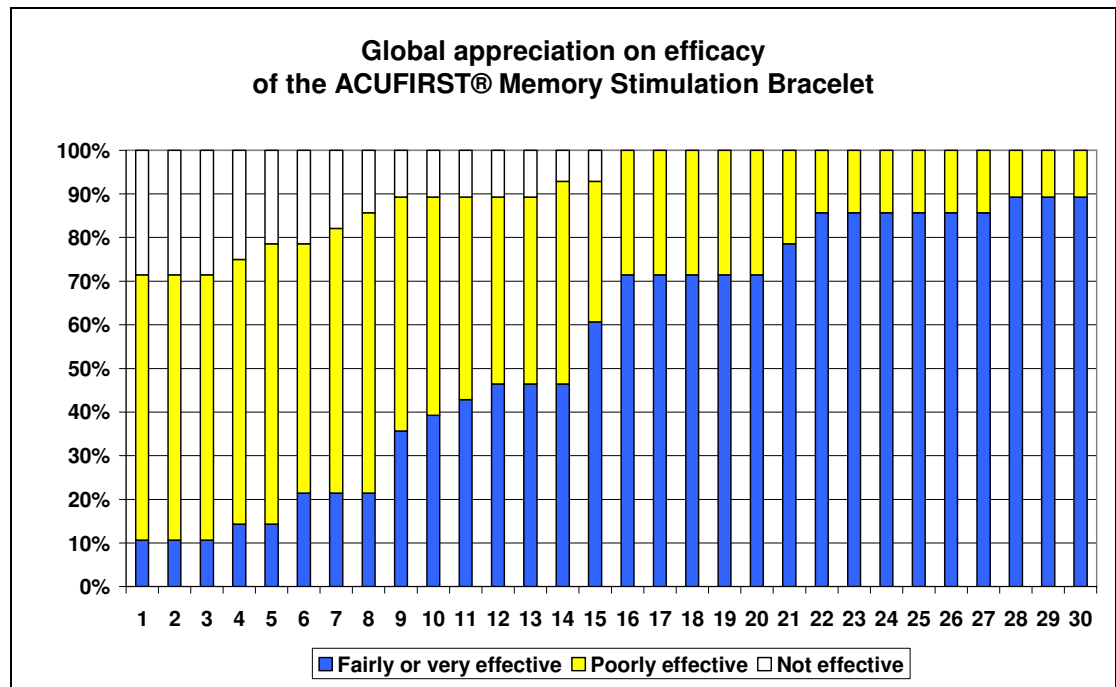


During the 30 days, more than half subjects judged the bracelet fairly or very effective from the 15<sup>th</sup> day onward; they were clearly more numerous from the 20<sup>th</sup> day to the 30<sup>th</sup> day (see Table 2 and Figure 6).

**Table 2: Day-by-day distribution of the Subjects' Global Appreciation on Efficacy of the ACUFIRST® Memory Stimulation bracelet**

<i>Day</i>	<i>Not effective</i>	<i>Poorly effective</i>	<i>Fairly or very effective</i>
<i>01</i>	28%	61%	11%
<i>02</i>	28%	61%	11%
<i>03</i>	28%	61%	11%
<i>04</i>	25%	61%	14%
<i>05</i>	21%	65%	14%
<i>06</i>	21%	57%	21%
<i>07</i>	18%	61%	21%
<i>08</i>	14%	64%	22%
<i>09</i>	11%	53%	36%
<i>10</i>	11%	50%	39%
<i>11</i>	11%	46%	43%
<i>12</i>	11%	43%	46%
<i>13</i>	11%	43%	46%
<i>14</i>	7%	46%	47%
<i>15</i>	7%	32%	61%
<i>16</i>	0%	29%	71%
<i>17</i>	0%	29%	71%
<i>18</i>	0%	29%	71%
<i>19</i>	0%	29%	71%
<i>20</i>	0%	29%	71%
<i>21</i>	0%	22%	78%
<i>22</i>	0%	14%	86%
<i>23</i>	0%	14%	86%
<i>24</i>	0%	14%	86%
<i>25</i>	0%	14%	86%
<i>26</i>	0%	14%	86%
<i>27</i>	0%	14%	86%
<i>28</i>	0%	11%	89%
<i>29</i>	0%	11%	89%
<i>30</i>	0%	11%	89%

**Figure 6: Day-by-day distribution of the Subjects' Global Appreciation on Efficacy of the ACUFIRST® Memory Stimulation bracelet**



## 6 Discussion

This open study had evaluated the effect of the ACUFIRST® Memory Stimulation bracelet on the memory troubles and had shown a net trend in favour of the efficacy of the bracelet.

The statistical analysis consisted in descriptive presentation of results of the Mnemosyne® tests at D0, D15 and D30, as well as the distribution of the subject appreciation on efficacy, expressed in days over the total of 840 days of use, thus 840 opinions of subjects.

The Mnemosyne® tests are interesting as they are based on the acquired knowledge, that is the ancient memory and the immediate one.

We are aware that the subjects' positive appreciations on the bracelet efficacy can be considered to be subjective opinions; anyway, it can be noted that these opinions are confirmed by the results of the Mnemosyne® tests.

As a more pragmatic approach, we also chose to consider the daily appreciation of every subject on the bracelet efficacy during thirty days; the high number of data allowing valid statistical calculations.

The manipulation of the ACUFIRST® bracelet was made easier by the pre-programming of the bracelet.

The realization of the study required to target well the subjects and to give them a long and detailed explanation for the understanding of the protocol.

No cutaneous reaction of allergy-type to metal was reported.

## 7 Conclusion

The results obtained in the study reveal a real efficacy of the ACUFIRST® Memory Stimulation bracelet on the memory troubles.

The subjects having participated in the study considered that the ACUFIRST® Memory Stimulation bracelet is helpful against the memory troubles in 55% of cases.

This study relied on objective and subjective criteria and would require to be confirmed by a long-term study, including larger number of subjects.

Switching on the bracelet each time an action involves memory, implies the subject's reflection and increases his/her concentration.

## 8 Bibliography

LEBARBIER A, *Acupuncture pratique*, ed. Maisonneuve, 1975.

LAVIER J A, *Vademecum d'acupuncture symptomatique*, ed. Maloine, 1985.

*Les tests du capitaine*, Mémo Programme Mens Sana 91000 Evry.

COUCHAERE M J, *Eduquer la mémoire*, 3ème édition, France:ESF éditeur, 1990.

UNGERLEIDER, L G, *Les dédales de la mémoire. Une fois l'objet disparu, l'imagerie suit sa trace dans le cortex cérébral*, La recherche (spécial), juillet et août 1996.

## 9 Efficacy Data Listings

**Listing 1 : Individual Data: Subject Characteristics and number of daily connections of the bracelet**

Initials	DD	TD	CJ	LL	SF	DG	KH	AG	JPB	MB	AD	NB	JD	WL	EG	BJC	DC	NA	MA	MC	PL	ML	JJ	BM	JCR	MF	PT	GB
Sex	H	H	H	F	F	H	H	F	H	F	F	F	H	F	H	H	H	F	F	F	F	F	F	F	H	F	H	F
Age	45	55	60	35	52	56	49	43	62	60	45	58	65	51	54	56	66	55	45	52	48	69	60	55	67	53	55	59
Day																												
01	15	8	8	13	11	8	10	20	15	10	8	15	15	17	9	8	10	6	10	4	10	10	15	10	8	12	16	18
02	15	8	10	13	11	8	10	20	15	10	8	14	17	18	10	9	10	10	10	10	10	10	14	10	8	12	17	19
03	15	12	10	13	11	8	10	19	15	14	10	15	15	10	11	9	10	10	10	10	10	8	12	10	9	12	18	20
04	15	8	10	12	13	7	10	19	15	15	9	12	18	18	10	8	10	10	10	10	10	10	12	11	8	15	19	20
05	15	10	11	12	12	7	11	20	15	11	11	11	14	19	11	7	10	10	10	10	10	10	12	11	9	15	16	20
06	15	11	9	13	12	7	11	20	16	8	11	13	13	12	10	8	10	10	10	10	10	10	15	10	7	13	17	21
07	16	8	9	13	13	8	11	19	16	13	10	13	15	18	11	7	10	10	10	10	10	10	15	12	8	13	18	21
08	16	8	7	11	12	7	11	19	16	10	11	12	13	19	12	9	10	10	10	10	10	10	14	11	5	15	16	20
09	16	11	7	11	13	8	11	19	16	11	9	13	13	15	13	9	10	10	10	10	10	10	12	10	9	13	17	20
10	16	6	10	10	14	7	15	19	16	12	11	13	15	19	10	8	10	10	10	10	10	10	11	11	9	15	18	19
11	14	8	7	13	15	6	15	20	16	15	11	11	13	19	11	7	10	10	10	10	10	10	14	10	8	15	16	19
12	16	12	8	13	14	6	15	21	16	13	9	14	14	15	12	8	10	10	10	10	10	10	15	11	8	13	17	20
13	0	11	8	15	13	7	11	21	15	12	10	14	15	18	12	7	10	10	10	9	8	8	15	10	9	15	16	20
14	0	9	9	13	11	7	11	20	15	11	10	11	14	19	13	7	10	10	7	10	10	10	15	1	8	14	18	19
15	0	13	11	12	10	8	11	20	15	11	10	14	14	19	12	8	10	10	10	10	10	10	10	10	10	10	10	10
16	16	13	11	11	10	7	11	19	15	10	9	13	16	18	12	9	10	10	10	10	10	10	10	10	10	10	10	10
17	16	12	10	13	10	8	15	13	16	12	9	12	12	18	11	5	10	10	10	10	10	10	15	10	8	15	15	19
18	16	11	7	11	11	7	14	13	17	12	10	11	15	15	10	7	10	10	10	10	10	10	14	10	8	13	15	20
19	14	10	8	13	11	11	19	19	16	13	11	14	15	19	9	7	10	10	10	10	10	10	10	9	9	15	18	20



Initials	DD	TD	CJ	LL	SF	DG	KH	AG	JPB	MB	AD	NB	JD	WL	EG	BJC	DC	NA	MA	MC	PL	ML	JJ	BM	JCR	MF	PT	GB
Sex	H	H	H	F	F	H	H	F	H	F	F	F	H	F	H	H	H	F	F	F	F	F	F	F	H	F	H	F
Age	45	55	60	35	52	56	49	43	62	60	45	58	65	51	54	56	66	55	45	52	48	69	60	55	67	53	55	59
Day																												
20	13	8	9	13	12	11	19	13	16	11	10	14	18	14	9	8	10	10	10	10	10	10	15	9	7	13	19	19
21	16	9	10	14	11	9	20	20	15	11	9	14	17	19	10	9	10	10	10	10	10	10	15	11	5	15	16	19
22	15	10	11	15	12	9	19	20	15	11	9	14	15	19	9	9	10	10	10	10	10	10	14	12	8	13	17	20
23	15	11	12	15	11	11	11	13	16	10	11	13	14	15	10	8	10	10	10	10	10	10	10	11	8	12	17	20
24	14	10	7	14	11	10	11	13	16	12	11	13	15	14	8	8	10	10	10	10	10	10	10	10	9	14	18	18
25	12	8	8	13	12	10	11	19	16	13	9	13	14	18	9	9	10	10	10	10	10	10	15	11	9	14	19	18
26	15	8	9	10	12	10	12	19	16	11	11	12	13	19	10	10	10	10	10	10	10	10	15	10	5	15	17	18
27	16	10	9	10	12	9	12	18	15	11	12	11	13	19	10	9	10	10	10	10	10	10	12	10	8	14	17	18
28	16	11	12	12	11	9	12	20	15	11	10	15	14	18	11	9	10	10	10	10	10	10	14	11	7	15	15	19
29	16	11	12	11	11	9	11	20	15	10	10	13	15	14	11	8	10	10	10	10	10	10	14	9	8	15	19	20
30	12	10	11	11	11	10	12	20	14	11	9	15	15	16	12	8	10	10	10	10	10	10	15	9	9	14	19	19

**Listing 2 : Individual Data: Results of the Mnémosyne® tests**

	<b>MNEMOSYNE® Tests</b>											
<b>Initials</b>	<b>7 DWARFS</b>			<b>PATRON SAINTS</b>			<b>LIST OF WORDS</b>			<b>TOTAL</b>		
	<i>D0</i>	<i>D15</i>	<i>D30</i>	<i>D0</i>	<i>D15</i>	<i>D30</i>	<i>D0</i>	<i>D15</i>	<i>D30</i>	<i>D0</i>	<i>D15</i>	<i>D30</i>
DD	20	20	20	4	12	20	36	42	48	60	74	88
TD	8	8	12	0	4	12	12	18	24	20	30	48
CJ	12	20	20	12	20	20	30	36	45	54	76	85
LL	12	20	20	8	20	20	45	45	54	65	85	94
SF	6	9	12	0	8	12	12	15	24	18	32	48
DG	20	20	20	8	20	20	45	51	51	73	91	91
KH	20	20	20	12	12	20	42	45	51	74	77	91
AG	20	20	20	12	20	20	39	45	45	71	85	85
JPB	12	20	20	8	20	20	30	42	48	50	82	88
MB	12	20	20	0	20	20	18	27	33	30	67	73
AD	10	12	12	4	20	20	36	42	42	50	74	74
NB	8	12	20	0	20	20	45	48	54	53	80	94
JD	8	10	12	4	8	20	30	36	42	42	54	74
WL	20	20	20	8	12	12	45	51	54	73	83	86
EG	8	12	20	4	20	20	18	27	36	30	59	76
BJC	12	20	20	4	20	20	27	36	48	43	76	88
DC	12	20	20	4	20	20	24	30	39	40	70	79
NA	16	20	20	12	20	20	27	30	33	55	70	73
MA	8	10	12	4	4	12	15	18	21	27	32	45
MC	20	20	20	8	20	20	24	27	30	52	67	70
PL	12	20	20	4	8	12	18	24	33	34	52	65
ML	8	10	12	4	8	12	27	27	30	39	45	54
JJ	6	10	12	8	12	12	27	33	39	41	55	63
BM	10	12	20	8	8	12	24	33	33	42	53	65

MNEMOSYNE® Tests												
Initials	7 DWARFS			PATRON SAINTS			LIST OF WORDS			TOTAL		
	D0	D15	D30	D0	D15	D30	D0	D15	D30	D0	D15	D30
JCR	20	20	20	8	8	8	36	42	45	64	70	73
MF	10	12	12	8	8	8	30	36	42	48	56	62
PT	12	12	12	8	8	12	36	39	39	56	59	63
GB	4	8	20	0	8	20	18	30	36	22	46	76

**Listing 3 : Individual Data: Subjects' Global Appreciation on Efficacy**

	Initials																											
	DD	TD	CJ	LL	SF	DG	KH	AG	JPB	MB	AD	NB	JD	WL	EG	BJC	DC	NA	MA	MC	PL	ML	JJ	BM	JCR	MF	PT	GB
Day																												
1	1	0	1	1	0	1	2	1	2	0	0	0	1	1	1	1	1	0	1	0	0	1	1	1	2	1	1	
2	1	0	1	1	0	1	2	1	2	0	0	0	1	1	1	1	1	0	1	0	0	1	1	1	2	1	1	1
3	1	0	1	1	0	1	2	1	2	0	0	0	1	1	1	1	1	0	1	0	0	1	1	1	2	1	1	1
4	1	0	1	1	0	1	2	1	2	0	0	0	1	1	1	1	1	1	1	0	0	1	1	1	2	2	1	1
5	1	0	1	1	0	1	2	1	2	0	0	1	1	1	1	1	1	1	1	0	0	1	1	1	2	2	1	1
6	1	0	1	1	0	1	2	1	2	0	0	1	1	1	1	1	2	1	1	0	0	1	1	2	2	2	1	1
7	1	0	1	1	0	1	2	1	2	0	0	1	1	1	1	1	2	1	1	1	0	1	1	2	2	2	1	1
8	1	0	1	1	0	1	2	1	2	0	0	1	1	1	1	1	2	1	1	1	1	1	1	2	2	2	1	1
9	2	0	1	2	0	1	2	1	2	1	0	1	1	1	1	1	2	1	2	1	1	1	1	2	2	2	1	2
10	2	0	1	2	0	1	2	1	2	1	0	1	1	1	1	1	2	1	2	1	1	1	2	2	2	2	1	2
11	2	0	1	2	0	1	2	1	2	1	0	1	1	1	1	2	2	1	2	1	1	1	2	2	2	2	1	2
12	2	0	2	2	0	1	2	1	2	1	0	1	1	1	1	2	2	1	2	1	1	1	2	2	2	2	1	2
13	2	0	2	2	0	1	2	1	2	1	0	1	1	1	1	2	2	1	2	1	1	1	2	2	2	2	1	2
14	2	0	2	2	1	1	3	1	2	1	1	1	1	1	1	2	2	1	2	1	0	1	2	2	2	2	1	2
15	2	0	2	2	1	2	3	1	2	1	1	2	2	2	1	2	3	1	2	1	0	1	2	3	2	2	1	2
16	2	1	2	2	1	2	3	1	3	2	1	2	2	2	2	2	3	1	2	1	2	1	2	3	2	2	1	2
17	2	1	2	2	1	2	3	1	3	2	1	2	2	2	2	2	3	1	2	1	2	1	2	3	2	2	1	2
18	2	1	2	2	1	2	3	1	3	2	1	2	2	2	2	2	3	1	2	1	2	1	2	3	2	2	1	2
19	2	1	2	2	1	2	3	1	3	2	1	2	2	2	2	2	3	1	2	1	1	1	2	3	2	2	2	2
20	2	1	2	2	1	2	3	1	3	2	1	2	2	2	2	2	3	1	2	1	1	1	2	3	2	2	2	2
21	2	1	2	2	1	2	3	2	3	2	1	2	2	2	2	2	3	1	2	1	2	1	2	3	2	2	2	2
22	2	1	2	2	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	2	3	2	2	2	2
23	2	1	2	2	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	3	3	2	2	2	2

	Initials																											
	DD	TD	CJ	LL	SF	DG	KH	AG	JPB	MB	AD	NB	JD	WL	EG	BJC	DC	NA	MA	MC	PL	ML	JJ	BM	JCR	MF	PT	GB
Day																												
24	2	1	2	3	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	3	3	2	2	2	2
25	2	1	2	3	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	3	3	2	2	2	2
26	2	1	2	3	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	3	3	2	3	2	2
27	2	1	2	3	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	3	3	2	3	2	2
28	2	2	2	3	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	3	3	3	3	2	2
29	2	2	2	3	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	3	3	2	3	2	2
30	2	2	2	3	2	2	3	2	3	2	1	2	2	2	2	2	3	1	2	2	2	1	3	3	2	3	2	2