

## **Shiseido Proves that Continuously Using Cosmetics**

## Improves Activities of Daily Living of the Elderly

Shiseido has developed its own unique "Cosmetic Therapy Program (Makeup Lessons)" for elderly persons at care facilities so that they can find enjoyment in using cosmetics and improve their quality of life (QOL). The program has been carried out on a fee basis in the Tokyo metropolitan area since April 2011. The effectiveness of this program become evident based on scientific verification, including the reduction of the level of dementia according to neuroscience research and a more upbeat, positive attitude and behavior according to psychological research.

In cooperation with Nursing Plaza Kohoku nursing and healthcare facility for the elderly (Yokohama City), "Makeup Lessons" that were held twice a month for three months verified new effects on elderly behavior. Findings included the necessary level of assistance for eating, grooming and using the toilet became lower while the ability to do things by oneself increased and activities of daily living (ADL) improved.

At the same time, this means that "Makeup Lessons" can reduce the burden on caregivers and improve the quality of nursing care service, and have thus been recognized as having a greater social significance than ever before.

The findings were presented at the Second Conference of the Kenkou-Ikigai Academic Society in Tokyo held at The University of Tokyo on Wednesday, November 23.

#### Physical Function (Grip Strength) and Improvement of ADL Independence Level

It is said that physical function declines along with aging and in dependent elderly, the maintenance of physical function and ADL are extremely important. Shiseido brought to light the fact that when elderly people use cosmetics, this puts the necessary load on the upper limbs to maintain muscle strength. Shiseido has presented this finding at an academic conference\*.

In this respect, Shiseido promoted research in cooperation with Nursing Plaza Kohoku, focusing on how elderly people's physical function and ADL change by continuously carrying out "Makeup Lessons."

Accordingly, elderly persons followed a skincare routine (skincare using lotion and emulsion) two times daily and participated in "Makeup Lessons" twice a month continuously for a three-month period, whereby results showed that as one physical function, the grip strength of both hands became stronger (Figure 1). At the same time, it was also observed that ADL independence level also improved (Figure 2), with each person improving in an average of four categories (among 17 categories in total). As for specific categories, eating, grooming and toileting showed the most cases of improvement, followed by dressing (upper and lower body), sphincter control and transfer to bed, chair and wheelchair. In addition, in terms of the number of cases of improvement among 7 stages, the largest was 15 cases, in which subjects moved 1 rank up from the minimal assist level (level 4) to supervision level (level 5), followed by 8 cases of improvement moving up from the supervision level to modified independence level (level 6) and from the moderate assistance level (level 3) to minimal assistance level (Figure 3).

\* 19th Conference of The Japanese Association of Research on Care and Welfare (September 4, 2011, Tokyo) "Effect of activities of skincare application on motor function of upper limbs ~ Effect of grooming on nursing care prevention ~"

### Physical Function (Grip Strength) and ADL Independence Level of the Elderly

With regard to dependent elderly women (13 persons, average age of 85.9 years old) who took part in tests to investigate the relationship between grip strength as a measure of physical function and ADL independence level, findings showed that stronger grip strength is indicative of higher ADL independence (Figure 4). The following are typical examples after a three-month period to reduce the burden on caregivers.

[Example 1] Reducing assistance for toileting due to improvement of grip strength

Elderly people can hand rails on their own; therefore, one care staff member can change diapers instead of previously taking two staff members to do so.

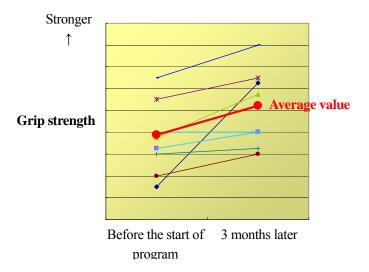
[Example 2] Improvement of transfers due to improvement of grip strength

Elderly people can hand rails including for the toilet and bed on their own; therefore, the assistance level of care staff members is reduced.

#### Further Effectiveness of "Makeup Therapy Program (Makeup Lessons)"

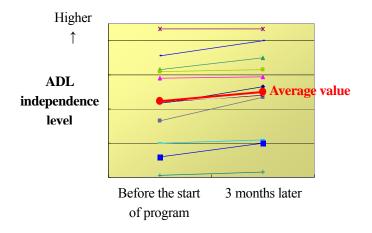
Shiseido's uniquely developed "Makeup Lessons" (60 minutes) have been found to be able to reduce the level of dementia according to neuroscience research and result in a more upbeat, positive attitude and behavior according to psychological research. In addition, it was newly verified that continuously carrying out "Makeup Lessons" that incorporate using cosmetics that includes skincare and putting on makeup, which requires exercise of muscles and joints of the upper limbs, improves physical function together with ADL.

This proven improvement of ADL of dependent elderly reduces the physical and time burdens on caregivers and also improves the quality of nursing care service within facilities. Therefore, "Makeup Lessons" have been recognized as having a greater social significance than ever before.



Grip strength as physical function became stronger after 3 months compared with before starting the program

(Figure 1) Change of Grip Strength after 3 Months



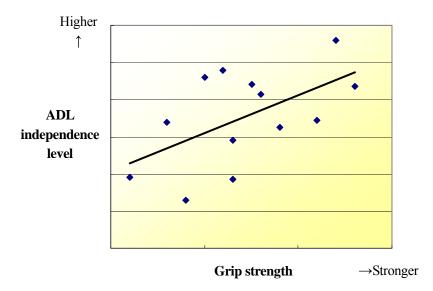
ADL independence level improved after 3 months compared with before starting the program

(Figure 2) Change of ADL Independence Level after 3 Months

L E V E L S	NO HELPER	7	Completely Independence(Timely, Safely)	6	7 4 cases
		6	Modified Independence (Device)	5	6 8 cases
	HELPER	In need	of partial assistance	4	5 15 cases
		5	Supervision (Subject = 100%+)	3	4 8 cases
		4	Minimal Assist (Subject = 75%+)	2-	3 5 cases
		3	Moderate Assist (Subject = 50%+)	1-	2 4 cases
		In need	of total assistance	3	5 4 cases
		2	Maximal Assist (Subject = 25%+)	2	4 1 case
		1	Total Assist (Subject = less than 25%)		

ADL independence level improved and assistance load is reduced

(Figure 3) ADL Independence Assessment Level and Number of Cases of Improvement



Grip strength as physical function is stronger and ADL independence is higher

(Figure 4) Relationship between Grip Strength and ADL Independence Level

#### Reference

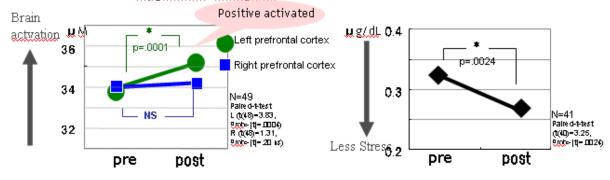
#### < Shiseido's History of Activities for "Contributing to Society through Beauty and Health" >

- Shiseido introduced a "Special Beauty Seminar" in 1949 for high school graduates to be taught how to
  apply makeup and style their hair to maintain their grooming and appearance in becoming adult
  members of society. This marked the beginning of free beauty seminars for general customers.
- In 1975, Shiseido started monthly beauty services at a special nursing home for elderly in Iwate Prefecture in response to the facility's request. In 1993, at Naruto Yamagami Hospital in Tokushima Prefecture, Shiseido started a "Grooming and Appearance Seminar" for hospitalized elderly people due to the fact that the hospital was conducting research focusing on the "psychological effects of makeup," whereby the effects of alleviating symptoms and improving QOL were recognized. This result has been positioned as "makeup therapy," and has drawn attention from other medical institutions as well as been expanded to hospitals and elderly nursing care facilities throughout Japan.
- Currently, Shiseido is actively carrying out the "SHISEIDO LIFE QUALITY BEAUTY SEMINAR (SLQ SEMINAR)" conducted by employees free of charge as a pillar of its CSR activities based on Shiseido's philosophy of "Contributing to society through beauty and health." In 2010, the seminar was held throughout Japan a total 3,000 times and in which a total of roughly 46,000 persons participated.
- Shiseido has developed its own unique "Makeup Therapy Program" for the elderly to let them enjoy using cosmetics and improve their QOL. Shiseido verified the effectiveness of the program through neuroscience, psychological and scientific evidence. The "Makeup Therapy Program" has been carried out on a fee basis in the Tokyo metropolitan area since April 2011.

① Brain activities increase (cerebral blood flow)

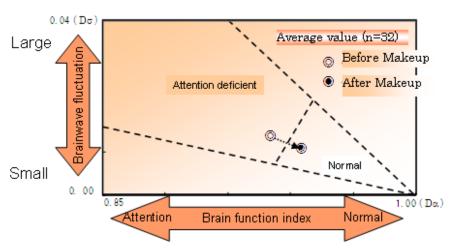
②Stress hormone level decreases (cortisol in saliva)

Concentration of oxygenerated homoglobin



Activation of "pleasure" in elderly person's brain

# ③ Brainwave patterns (healthy person, person with Alzheimer's disease)



[Measurement periods] October ~ December 2009 (1 facility), January 2010 ~ March 2011 (2 facilities) [Implementation facilities] Elderly care facilities (3 facilities)

[Target subjects] Females in the 69  $\sim$  92 age range living in elderly care facilities, 32 persons in total (moderate dementia  $\sim$  healthy)

(Shiseido research)