



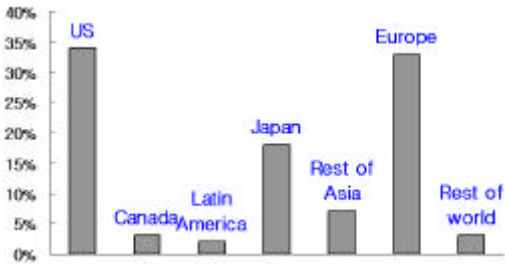
1. 가 24 가 , 가

1984 1986
 「 (1) (2)
 (3) 3 2.
 「 (Physiologically
 Functional Food)」 97 650
 , 2005 10 가
 가 ,
 (1991) (IFT)
 (FoSHU: Food for Specified Health 가 100 CRO
 Use) , 2001 4 (Chief Research Officers)
 (Health Function Foods) ,
 . Designer Food,
 Functional Food, Nutraceutical, Pharmafood, (1). 1
 Performance Food, Vita-Food, Phytochemical,
 Foodaceutical , 99 445 ,
 . Dietary supplements, Food supple- . 2000 NBJ
 ments, Health food, Medical Food, 422 , 2315
 , 가 , 가 36.7
 가 , 947.5 73%
 4 . , / ,
 12. '98, '99 2 1,099 1,280
 8 , 13. . 2000

1. CRO

1	
2	Nutraceutical, medical food
3	가
4	(natural food)
5	
6	
7	
8	ISO QC

: Food Technology, 54(12), 42-46, 2000



1.

: Nutrition Business Journal, 2000

7%가 1,380 , , , ,
85%

3.

1980 “ ” 1991
“ ” , ,
“ ” 2001
4 가
1999 7,500

2.

(:)

	96	97	98	99
	1,300	1,300	1,450	1,550
,	1,200	1,100	1,100	1,150
	4,000	4,200	4,350	4,800
	6,500	6,600	6,900	7,500

3.1.

, , 가
50 , 1998
3,493 , 가
53% (3).

3.2.

가 , 377 가
352 ,
(4).

3.3.

12 1991
“

.” 3

1

3.

<ul style="list-style-type: none"> · 1. 2. 3. ()가 4. 가 5. 가 6. 가 7. () 가 · 8. EPA/DHA 가 9. - 10. 11. 12. · 13. 14. 가 15. 가 16. 가 17. 	<ul style="list-style-type: none"> · 18. 19. 20. 21. 22. Vitamin E 23. Vitamin C 24. · 25. · 26. () 27. 28. 29. · 30. 31. 	<ul style="list-style-type: none"> · 32. 가 33. 가 · 34. 가 35. 가 가 가 36. 37. 38. 39. 40. 가 41. ()가 42. 43. 44. 45. 가 46. 가 47. 가 48. ISO · 49. 50.
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4.

		가
		99
		29
(,)	()	7
		1
		7
		19
		2
		0
		176
		0
		6
(가)	,	8
		3
		13
		3
		377

- : 145 (Fiber, Oligosaccharide, Lactobacillus, Bifidobacterium)
- 가 : 23 (Peptide, Dietary Fiber, Protein)
- : 12 (Peptide, Glycoside)
- : 12 (CPP, CCM, Heme Fe, Peptide, Oligosaccharide)
- : 8 (Polyphenol, Sugar Alcohol)
- : 14 (Indigestible Dextrin)
- : 10 (Soyprotein, Soluble Dietary Fiber, Peptide)

224 가 ,
2000 2,000 .

3.4

가

, , , 가 , , (가 가 가 , , , 2001 4 . ,). (2).

()	(가) ()	()
		()

5.

		.
	(A, D, E, B1, B2, B6, B12, C)	D .()

1 :

(:)

2 :

가 가
가

4.

가

4.1

○ (NLEA, Nutrition Labeling & Education Act, 1990)

(2) DSHEA 3가
3가

11가

○ (DSHEA, The Dietary Supplement Health & Education Act, 1994)

4가

(1)

「 가

3가

6. US Nutrition Industry Retail Sale

(\$ Millions)

Product Category	Years					Change rate(%) 1996-2000
	1996	1997	1998	1999	2000	
Vitamins	4,780	5,190	5,460	5,770	6,070	27
Herbs & Botanicals	2,990	3,530	3,920	4,290	4,650	56
Sports Nutrition	1,070	1,270	1,410	1,540	1,660	55
Minerals	900	1,070	1,130	1,200	1,270	41
Meal Supplements	620	660	670	690	710	15
Specialty Ingredients & Others	920	960	1,110	1,240	1,380	50
Total Supplements	11,280	12,680	13,700	14,730	15,740	40
Natural/Organic Food	7,010	7,990	8,730	8,440	10,120	44
Natural/Organic Personal Care	3,660	2,940	3,230	3,520	3,790	4
Total Nutrition Industry	20,950	23,610	25,660	27,690	29,650	42

* Nutrition Business Journal, 2001

7.

'98	Herb	'98	(%)	'97	(%)	'97
1	Echinacea	9.79		11.93%		1
2	St. Johns Wort	9.10		1.87%		17
3	Gingko biloba	7.38		6.80%		3
4	Garlic	6.53		8.52%		2
5	Saw palmetto	4.82		4.87%		5
6	Ginseng	4.11		4.76%		6-tie
7	Goldenseal	3.88		5.95%		4
8	Aloe	3.57		4.76%		6-tie
9	Siberean ginseng	2.52		2.70%		11
10	Valerian	2.30		1.73%		18

가 가 , ,

FDA 가 , 가 .

, ,

FDA

30

FDA

(4) DSHEA

(3)

8. US sales of top ten Specialty Supplements 1999*

(\$ Millions)	
Specialty Supplement	Sales
Glucosamine	871.8
Chondroitin Sulfate	394.1
Coenzyme Q10	288.1
Methylsulfonyl methane	102.6
Soy isoflavones	84.5
Fish Oils	82.5
<i>Lactobacillus acidophilus</i>	68.6
Amino acid	63.7
Flax oil	57.9
Docosahexanoic acid	44.4
Total	2,058.2

* Hartman Group

9.

	(%)			
	2000	2001	2002	2003
	2.0	2.0	1.9	2.1
Herb/Botanicals	2.5	2.4	2.2	2.0
Sports Nutrition	6.5	7.0	6.6	6.2
Minerals	9.0	8.0	7.6	6.8
Meal Supplements	5.0	4.7	4.5	4.2
Specialty/	11.0	10.0	8.9	7.7

36 2 44%
 가 ,
 30%가
 가 125
 65 (52%)가 ,

○

2,000

13

○

○ Coenzyme Q10(Ubiquinone)

lipophilic

○ MSM(methylsulfonyl methane)

MSM

4.2

○ 97

125 (53.9%), 45 (19.4%),
 40 (17.2%),
 22 (9.5%)

○

. 97

5.

96

「가」 6.

6.1

가 ,가

가 6.2

가 가

가 ,가

○ 6.3

가 “ ” ,가

1996 , 1998

○ 가 ,가 15가

24가 6.4

(,가

6.5

,가

10.

(24 , 24)		
1. (EPA/DHA)	10.	19.
2.	11.	20.
3.	12.	21.
4.	13.	22.
5.	14.	23.
6.	15.	24.
7.	16. ,	
8. (/)	17.	
9.	18.	
(2)		
·	·	

(15)		
·	·	·
·	·	·
·	()	·
·	·	()
·	·	·
(4)		
· ()	·	·
(4)		
· 가 ()	·	· 가 ()
· 가 (,)		

· 가 가 6.6
 , 가 가 가
 , 2000 1,733 (.
 · , 가) 1,118 , 257 ,
 , 63 가 ,
 가 가 가 , , ,
 . 가 ,
 가 . 가 . 「 」
 , 768
 ,
 . (147) (146) , 가 (139

11. '94-'99

()

[가 :]

	'94	'95	'96	'97	'98	'99	(%)
1.	115,308	118,401	160,672	73,885	37,334	58,527	56.8
2.	24,135	20,806	22,578	10,721	12,082	11,140	- 7.8
3.	42,776	72,034	97,720	64,257	39,925	50,739	27.1
4. 가	60,430	105,518	93,303	58,446	39,099	46,429	18.7
5.	191,346	174,380	112,722	109,604	25,550	45,698	78.9
6.	69,885	83,168	79,554	43,552	30,794	33,581	9.1
7.	7,361	10,520	21,762	14,329	19,829	28,030	41.4
8.	2,347	3,792	16,564	13,811	7,976	12,653	58.6
9.	2,601	9,752	11,606	23,508	8,625	5,304	- 38.5
10.	17,073	23,540	59,052	27,839	14,574	12,746	- 12.5
11. 가	1,026	2,346	3,223	3,643	1,995	3,603	80.6
12.	1,670	353	5,820	2,458	578	2,081	260.1
13.	32,535	33,474	18,764	20,831	3,807	10,251	169.3
14.	413	668	193	71	153	242	58.4
15.	11,360	7,488	7,901	8,796	5,368	7,096	32.2
16.	9,805	33,751	43,308	51,364	18,992	23,718	24.9
17.	1,303	2,438	4,197	6,459	4,922	4,344	- 11.7
18. 가	12,821	21,857	23,747	32,834	14,277	22,108	54.9
19.	105,889	107,649	111,390	98,274	88,757	127,744	43.9
20. 가	3,332	4,590	4,236	2,664	3,248	3,374	3.9
21.	51,843	97,964	149,722	127,642	89,852	135,573	50.9
22. 가	33,784	37,300	35,220	37,009	13,242	26,092	37.0
23.	-	-	12,464	15,847	5,234	11,995	129.2
24.	-	-	9,317	109,037	123,426	172,736	40.0
25.	-	-	18,510	23,538	12,161	17,166	41.2
	799,043	971,789	1,123,545	980,419	621,800	872,970	40.4

[(%) : (99 -98)98 × 100]

), (60)
919

892

12. 5

	'94	'95	'96	'97	'98		
	(%)	(%)	(%)	(%)	(%)		
1	24	18	14	13	20		
2	14	12	13	11	14		
3	13	11	10	11	14		
4	9	가	11	10	6		
5	가	8	10	9	8	가	6
	68	62	56	53	60		

13. (.) 2000

		()	(kg)	()	(가 \$)
1	가	224	227,940	14,679,952	11,292,271
2	가	234	133,854	3,134,416	2,411,089
3		316	331,589	6,072,118	4,670,860
4	가	489	422,858	13,953,113	10,733,164
5		58	72,141	4,369,342	3,361,032
6		65	9,257	1,196,346	920,266
7		77	43,748	3,604,371	2,772,593
8		112	58,911	2,352,544	1,809,649
9		61	46,958	2,038,360	1,567,969
10	가	39	21,160	293,076	225,443
11	가	25	16,862	215,420	165,708
12		18	560	101,852	78,348
13		9	2,070	39,644	30,495
14		23	96,309	213,937	164,567
15		20	3,413	577,327	444,098
16	.	67	13,190	744,579	572,753
17		105	6,920	313,789	241,376
18	가	50	4,913	818,453	629,579
19		294	1,672,518	14,646,009	11,266,161
20		40	46,329	1,014,763	780,587
21	가	73	14,937	1,633,776	1,256,751
22		56	13,235	2,402,166	1,847,820
23	가	70	12,733	1,720,050	1,323,115
24	가	77	11,569	692,496	532,689
		2,602	3,283,974	76,827,899	59,098,383
1	.	1	70,500	148,199	113,999
2	.	160	579,397	2,089,125	1,607,019
3		1,736	6,162,715	89,267,745	68,667,496
4		17	102,516	374,279	287,907
5		3	5,252	43,449	33,422
		1,917	6,920,380	91,922,797	70,709,843
		4,519	10,204,354	168,750,696	129,808,226

7. 3 () 가
가
가
2002 1 3 5 17% 7 PL ()

