

# Table of Contents

<b>Nautilus Bulletin #1</b>		<b>1</b>	<b>Nautilus Bulletin #2</b>		<b>95</b>
<b>Chapter</b>	<b>Page</b>		<b>Chapter</b>	<b>Page</b>	
An Introduction and a Brief Background	2		Basic Considerations	96	
Basic Physics of Conventional Exercise Methods	4		Commercial Bias	100	
The Functions of Muscular Structures	8		Personal Involvement	102	
Indirect Effect	11		The Name of the Game	104	
Frequency and Extent of Exercise	13		Diet	105	
Intensity of Effort	15		A Few Simple Facts	108	
Cam Action	18		Self-evident Truth	112	
Full Squats – Pro and Con	20		Strength and Muscular Endurance Factors	115	
Compound Exercises vs. Specialization	22		Barbells: Pro and Con	117	
Irregularity of Exercise	25		Time Factors in Exercise	120	
Inducing Growth Stimulation	27		The Psychology of Bodybuilders	124	
Secondary Growth Factors	30		The "Mr. Nautilus" Contest	127	
The Limits of Muscular Size	33		The Real Value of Weight Training	129	
Reciprocity Failure	35		The Drug Scene in Bodybuilding	131	
Strength and Endurance	37		Weight-training for Women	132	
Speed as a Factor	39		Muscular Potential and Heredity	134	
Accurately Measuring Power Production	41		Muscular Function	136	
"Warming-Up" Properly	44		Four Steps	139	
Superstitions and Myths	46		Barbells vs. Exercise Machines	141	
The "Instinctive Training" Theory	48		Direct Exercise	143	
Growth Drugs	49		The Recovery Factor	147	
Range of Movement – Flexibility	51		Individuality	150	
Average Expectations from Training	53		It Won't Happen Here	152	
Professional Medical Attitudes on Training	56		A Natural Mistake	154	
The Significance of Muscular "Pumping"	58		The First Step Towards Understanding	157	
The Significance of Muscular Soreness	60		The Second Step	161	
"Break-in" Training	62		The Third Step	165	
Age as a Factor	65		The Fourth Step	169	
Time as a Factor	66		The Fifth Step	172	
Developing Speed and Flexibility	68		The Sixth Step	175	
Muscular Proportions	70		The Seventh Step	178	
Layoffs from Training	72		The Moment-arm Factor	182	
"Sticking Points" in Training	73		Fuel Air Factors	189	
Confidence	75		A Simple Example	195	
The Significance of Measurements	76		Advanced Training	199	
Charting Progress	78		The Ultimate Physique	204	
The Pre-Exhaustion Principle	80		Proper Form	207	
The Harder It Seems – The Easier It Is	82		What to Expect	209	
Conclusions	84		A Realistic Goal	211	
The Nautilus Principles	86		The Present State of the Art	213	
The Next Step	89		The Next Step	219	
DeLand High School Training Programs	91				
Training with Conventional Equipment	92				
Recent Developments	94				

**Nautilus/Athletic Journal Articles 221**

<b>Article</b>	<b>Page</b>
Why Nautilus	223
Nautilus is Shaping the Future of Exercise	228
Exercise – The Present State of the Art	247
What to Expect from Exercise	257
Full-Range Exercise	263
Progressive Exercise	268
Time... as a Factor in Exercise	274
Responses to Exercise	279
The AE Factor	282
Avoiding and Preventing Injuries	286
Preventing Injuries in Sports	291
Improving Function in Any Sport	293
Negative Work as a Factor in Exercise	299
Negative Accentuated Strength Training	302
Metabolic Cost of Negative Work	305
The Colorado Experiment	309
"Negative Only" Strength Training	317
Flexibility and Metabolic Condition	321
Predicting Athletic Ability	329
The Missing Link in Athletic Performance	332
The Nervous System in Sports	335
The Relationship of Strength to Functional Ability in Sports	343
Specificity in Strength Training – Facts & Fables	345
Flexibility as a Result of Exercise	351
Increasing Neck Strength... for the Prevention of Injury	353
The Most Important Area	369
From Here to Infinity	375
The Future of Exercise – An Opinion	398
Exercise, 1983... the Possible and the Impossible	403

**Ironman Articles 419**

<b>Article</b>	<b>Page</b>
The Upper Body Squat	421
The Final Breakthrough	423
Is Great Size Incompatible with Muscularity	430
Speaking of Pump...	432
How Muscles Perform Work	434
And Then the Bomb	442
The Next Step	448
Is it Worth the Price?	457
The Time Factor in Exercise	460
Size or Strength?	469
A Pistol Barrel or a Pillow	477
In Plain English	486
The Real Value of Exercise	493
Accentuate the Negative	500
One Less Bump...	508
The Facts Are...	515
The Best Kind of Exercise	525
Distance – Resistance – Speed	530
Five Types of Exercise; Which is Best?	537
Total Omni-Direction Direct Exercise	538
Nautilus System Torso Machines	542
Train Under the Personal Direction of Arthur Jones	547

<b>Chapter</b>	<b>Page</b>	<b>Chapter</b>	<b>Page</b>
1	550	38	691
2	553	39	694
3	557	40	697
4	563	41	700
5	569	42	704
6	576	43	707
7	582	44	709
8	588	44b	713
9	593	45	715
10	597	46	718
11	602	47	721
12	606	48	724
13	610	49	727
14	614	50	730
15	618	51	733
16	622	52	735
17	631	53	738
18	634	54	740
19	637	55	742
20	641	56 Testing Strength: Part I	744
21	644	57 Testing Strength: Part II	748
22	646	58 Testing Strength: Part III	753
23	649	59 Testing Strength: Part IV	757
24	651	60 Testing Strength: Part V	760
25	654	61 Testing Strength: Part VI	762
26	657	62 Testing Strength: Part VII	765
27	660	63 Testing Strength: Part VIII	768
28	663	64 Testing Strength: Part IX	771
29	666	65 Testing Strength: Part X	773
30	670	66	775
31	672	67	777
32	675	68	780
33	677	69	782
34	680	70	784
35	683	70b	786
36	686	71	789
37	689		

<b>The Future of Exercise</b>	<b>791</b>
<b>Chapter</b>	<b>Page</b>
Introduction	792
The Importance of Exercise	793
The Importance of Genetics	795
A Brief History of Exercise	799
The Long, Slow Process of Innovation	804
Lessons from Our Mistakes	809
Some Very Basic Physics	812
Typical Responses to Innovation, In Any Field	819
The Actual Requirements for Proper Exercise	823
Requirements (con't)	831
Misleading Testing Procedures	839
Strong is a Relative Term	850
Chapter 12	855
Chapter 13	858
Chapter 14	864
Basic Considerations for Rehab Exercise	870
Rehabilitation	875

<b>Tributes, Interviews &amp; a Visit</b>	<b>885</b>
<b>Article</b>	<b>Page</b>
A Tribute to Arthur Jones	886
Arthur Jones Day	887
An Interview with Arthur Jones	891
Keeping up with Arthur Jones	897
A Visit with Arthur Jones	906

<b>Appendices</b>	<b>911</b>
MedX Core System	911
MedX Medical Machines: Theory & Practice	
Equipment Anatomy	
Spinal Anatomy	919