

KEY VALUES FOR JUNIOR TRAINING

PART 2



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Technique

speed

Endurance

Strength

Agility

Basic education(u 10 Y)



1. teaching basic technical skills



2. start development aerobic metabolism + speed of movements



3. competitions as part of the training process



4. learning to have fun training

Learn to train

1. increase of physical load capacity through body training/stabilisation/stretching + motor skills/functional flexibility
2. increase the number of training hours/develop aerobic capacity + speed + limited initiation anaerobic training forms
3. technical perfection 4 competition styles +
4. learning to peak at important competition
5. discover ambition in swimming



learning to train thoroughly

1. develop training commitment, perseverance and mental skills
2. increase quantity & quality of training + further expand aerobic capacity /speed + dosed development anaerobic capacity
3. introduction to strength training in addition to body training + maintenance/improvement of motor skills and flexibility

Maximize individual performance

1. maximising physical/technical/mental/tactical skills through individualisation
2. training intensity and quality based on individual needs
3. perfecting the best competition technique
4. perfecting mental self-control and optimal competition format
5. strength training and maintenance motor skills and agility



WHEN TO TRAIN IT

Technique

speed

Endurance

Strength

Agility

Motoric skills
Coordination
Technique
(balance, sense of
rhythm, coupling
ability, orientation
ability, ability to
differentiate)

Antwerp

optimal 8-
13 years

Flanders

optimal 9-
13 years

Holland

Olbrecht

**Wilke/
Madsen**

8-16 years, gradual
transition from technique
exercises to technique
during swimming
exercises

Speed:
reaction
time +
speed of
movement
- max. 15
sec.

Antwerp

from 6y: good
development 8-
10y, optimal
development
from 11 years

Flanders

from 6 years,
good
development
8-10 years,
optimal
development
from 11 years

Holland

cautious
start from
the age of
6

Olbrecht

from 10-12 years girls /
12-14 years boys, well
trainable from 12y girls
/ 14y boys, optimal
trainability 16-18 years
reaction speed: from 8-
10 years, good design
12-16 years, optimal
trainability 16-18 years

**Wilke/
Madsen**

reaction time
from 9-13
years,
development
rate from 9.5
years

Anaerobic
capacity
(lactate
production)

Antwerp
start from 10
years, good
development
from 12 - 14
years, optimal
trainability 14-
18 years

Flanders

Holland

Olbrecht
start from 10
years, good
development
from 12 - 14
years, optimal
trainability 14-
18 years

Wilke/
Madsen

	Antwerp	Flanders	Holland	Olbrecht	Wilke/ Madsen
Anaerobic power (lactate tolerance)	cautious start girls from 13 years, optimal development from 14 years			cautious start girls from 13 years, optimal development from 14 years	
	cautious start boys from 14 years, optimal development from 16 years			cautious start boys from 14 years, optimal development from 16 years	

	Antwerp	Flanders	Holland	Olbrecht	Wilke/ Madsen
Aerobic endurance	cautious start from 5 years, start from 8 years, good development from 12 years, optimal trainability 16-18 years base from 9 years	cautious start from 5 years, start from 8 years, good development from 12 years, optimal trainability 16-18 years base from 9 years	cautious start from 5 years, start from 8 years, good development from 12 years, optimal trainability 16-18 years base from 9 years	cautious start from 5 years, start from 8 years, good development from 12 years, optimal trainability 16-18 years base from 9 years	cautious start from 5 years, start from 8 years, good development from 12 years, optimal trainability 16- 18 years base from 9 years

ANTWERP

FLANDERS

HOLLAND

OLBRECHT

WILKE/
MADSEN

Dryland,
stabilization
training

8-10 years girls, 8-
11 years boys -->
sports and games +
exercises with own
body weight,
flexibility exercises,
stabilization training

8-10 years girls, 8-
11 years boys -->
sports and games +
exercises with own
body weight,
flexibility exercises,
stabilization training

8-10 years girls, 8-
11 years boys -->
sports and games +
exercises with own
body weight,
flexibility exercises,
stabilization training

	Antwerp	Flanders	Holland	Olbrecht	Wilke/ Madsen
strength endurance	starts from 12 years girls / 14 years boys, good development 15- 16 years, optimal development from 17 years	starts from 14 years, good development 15-16 years, optimal development from 17 years		starts from 12 years girls/14 years boys, good development from 14 years girls/16 years boys, optimal development 16-20 years girls/18-20 years boys	from 14 years for girls, from 15 years for boys

	Antwerp	Flanders	Holland	Olbrecht	Wilke/ Madsen
Speed strenght	starts from 10 years, good development from 12 years girls, optimal development 16-18 years girls / 14-18 years boys			starts from 10 years, good development from 12 years girls, optimal development 16-18 years girls / 14-18 years boys	

ANTWERP

FLANDERS

HOLLAND

OLBRECHT

WILKE/
MADSEN

Explosiveness

starts from 14
years, good
development
15-16 years,
optimal
development
from 17 years

starts from 14
years, good
development
15-16 years,
optimal
development
from 17 years

	Antwerp	Flanders	Holland	Olbrecht	Wilke/ Madsen
hypertrophy (increase in strength potential) - maximum force	from 14-16 years girls / 16-18 years boys, optimal from 16 years girls / 18 years boys	from 16-17 years, optimal from 18 years	cautious start from 6 years, develop max. strength through strength training from 14-15 years for girls / 16-17 years for boys	starts from 12 years girls/14 years boys, good development from 14 years girls/16 years boys, optimal development 16-20 years girls/18-20 years boys	from 14 years for girls, from 15 years for boys

	Antwerp	Flanders	Holland	Olbrecht	Wilke/ Madsen
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flexibility

maintenance flexibility from 9 to 10 years, NO passive stretching exercises during puberty / accelerated body growth, BUT posture strengthening exercises

good development from 5 years, optimal development 12-14 years

from 8 years

Event	EYOF '22	EJC '22	difference	EC '21	difference	Total
50 free	00:27,20	00:26,47	2,68%	00:25,09	5,07%	7,76%
100m free	00:58,82	00:57,24	2,69%	00:54,72	4,28%	6,97%
200m free	02:09,05	02:05,71	2,59%	02:00,44	4,08%	6,67%
400m free	04:35,44	04:22,80	4,59%	04:15,20	2,76%	7,35%
800m free	09:20,35	08:59,32	3,75%	08:55,63	0,66%	0,66%
1500m free	X	17:25,46	X	16:49,86	3,41%	3,41%
50m back	X	00:29,80	X	00:28,40	4,70%	4,70%
100m back	01:06,30	01:04,19	3,18%	01:01,11	4,65%	7,83%
200m back	02:21,89	02:18,53	2,37%	02:13,96	3,22%	5,59%
50m breast	X	00:32,58	X	00:31,19	4,27%	4,27%
100m breast	01:14,67	01:11,31	4,50%	01:07,45	5,17%	9,67%
200m breast	02:39,12	02:34,85	2,68%	02:27,25	4,78%	7,46%
50m fly	X	00:27,64	X	00:26,59	3,80%	3,80%
100m fly	01:03,75	01:01,73	3,17%	00:59,39	3,67%	6,84%
200m fly	02:27,24	02:18,93	5,64%	02:12,82	4,15%	9,79%
200m IM	02:25,42	02:20,56	3,34%	02:13,77	4,67%	8,01%
400m IM	05:11,92	05:00,73	3,59%	XX	XX	XX
		AVG	3,44%	AVG	5,28%	

Comparison: EYOF – EJC – EC Women

Event	EYOF '22	EJC '22	difference	EC '21	difference	Total
50 free	00:24,05	00:23,35	2,91%	00:22,24	4,99%	7,90%
100m free	00:52,69	00:51,06	3,09%	00:48,76	4,72%	7,81%
200m free	01:56,43	01:51,87	3,92%	01:48,12	3,47%	7,38%
400m free	04:06,60	03:59,32	2,95%	03:50,06	4,03%	6,98%
800m free	X	08:16,48	X	07:57,24	4,03%	4,03%
1500m free	16:43,75	16:06,66	3,70%	15:30,35	3,90%	7,60%
50m back	X	00:26,21	X	00:25,28	3,68%	3,68%
100m back	00:58,66	00:56,90	3,00%	00:54,33	4,73%	7,73%
200m back	02:09,01	02:03,52	4,26%	01:59,10	3,71%	7,97%
50m breast	X	00:28,67	X	00:27,64	3,73%	3,73%
100m breast	01:07,07	01:03,58	5,20%	01:00,19	5,63%	10,84%
200m breast	02:24,80	02:18,86	4,10%	02:12,02	5,18%	9,28%
50m fly	X	00:24,84	X	00:23,55	5,48%	5,48%
100m fly	00:57,38	00:54,73	4,62%	00:52,21	4,83%	9,44%
200m fly	02:08,93	02:03,18	4,46%	01:57,78	4,58%	9,04%
200m IM	02:10,73	02:06,03	3,60%	02:00,26	4,80%	8,39%
400m IM	04:42,08	04:31,70	3,68%	04:22,07	3,67%	7,35%
		AVG	3,81%	AVG	5,78%	

Comparison: EYOF – EJC – EC Men