

II Season Planning

A. Jerry Lusk, Chugliak High School – Eagle River, Alaska

THE BASIC SEASON PLANNING OF A HIGH SCHOOL PROGRAM

For all of us who have assumed the role of a high school coach, there has been the infamous “First Season.” Like many of you, I was a Red Cross WSI who became swim coach with very little exposure to competitive swimming. My first year of high school coaching came with the inception of high school swimming in Alaska in 1974 and followed a two year long career as an AAU coach. Prior to that time, my athletic career was in areas far removed from a pool and was not of much value in providing a basis for success as a swimming coach.



Needless to say, since then I have been in a constant state of learning. I can only hope that I am able to pass on a small portion of what I have gained. Hopefully the following ideas will give you some basis for planning your “First Season.”

DEFINITIONS OR BASIC EXPLANATIONS YOU MAY NEED

Aerobic: A loose definition is “with oxygen.” This type of swimming is produced by long, easy, controlled, comfortable swims with the pulse below 150.

Anaerobic Threshold: This type of swimming begins to get a little uncomfortable with the pulse between 150 and 170. Both Aerobic Endurance training and Anaerobic/Aerobic training can fall in this category depending on your output.

Anaerobic: “Without oxygen.” The swimmer’s pulse is between 170 and 200 and this type of training will hurt. Its purpose is to produce the lactate buildup in the muscles and begin to develop the ability to tolerate it. Race pace training is a good example of the anaerobic type of training.

Base Training: Aerobic in nature, it is produced by long controlled swims. Base training develops slowly over a long period of time but, its effects are long lasting. True base training develops over years, not months.

Sharpening Training: This training involves anaerobic work and provides rapid improvement. Due to the chances of overtraining and injury, you can not train at this level for more than three months at a time. The results of sharpening training are also very short lived.

Distance per Stroke: This is big key to success for all swimmers. It is very important to work on a swimmer’s ability to be as efficient as possible as they move through the water. The key is to build speed without taking additional strokes per length. If a swimmer is taking more strokes per length when he is trying to go faster, he will tire quicker and is probably going slower instead of faster.

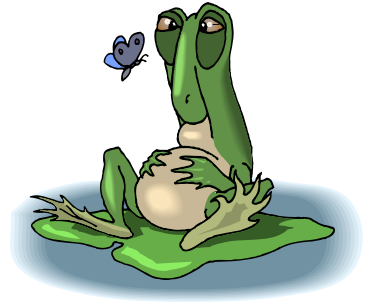
Lap: two lengths, down and back = 50 yards/meters

Length: 25 yards/meters

Set: Any group of repeated swims which are designed to produce a desired result.

Rest Interval: This is the amount of rest which the swimmer will get between the end of one repeat and the start of the next. It is abbreviated “RI” in the context of this document.

VO₂ Max: This type of training refers to the form of training used to produce the most efficient use of available oxygen.



The following is a brief explanation of the training types and types of workout sets which will produce each of the necessary elements of a well rounded training season. Every coach has their own form of shorthand and way of saying something. This set of explanations and sets most closely resembles my ideas and hopefully will make sense to you.

WORK OUT TRAINING TYPES (TT) AND EXAMPLES OF SETS

TT I – Pulse below 150, Aerobic in nature, warm-up and cool-down swimming

- 3 X 100 w / 15 sec RI
- 8 X 400 w / 10 sec RI
- 6 X 500 w / 10 sec RI
- 30 minute non stop swimming

TT II – Pulse 150 – 170, Aerobic endurance in nature

- 30 X 50 w / 15 sec RI
- 20 X 100 w / 15 sec RI
- 8 X 200 w / 15-20 sec RI
- 8 X 400 (any stroke) w / 20-30 sec. RI
- 8 X 200 IM w / 20 sec RI
- Ladder – done with 10 RI between parts of the ladder, if the ladder is to be repeated there is a 30 sec RI between the ladders i.e. 50-100-200-400-200-100-50

TT III – Pulse 160 – 190, Anaerobic/Aerobic development

- 30 X 50 w / 30-60 sec RI
- 15 X 100 w / 45 sec to 2 min RI
- 5 X 200 IM w 3 min RI – (if broken at the 50's use a 5 sec RI between them)
- 8 X 200 w / 1–2 min RI
- 8 X 400 w / 1–3 min RI
- 5 X 300 w / 8 min RI – (faster than their best 400 time)
- 8 X 150 w / 7 min RI – Best Stroke Other Than Free (BSOF)

TT IV – Pulse 190 – 200, faster than race pace swimming over shorter than actual race distances. These are always from a dive and are Anaerobic in nature. They are also different for sprinters (50 and 100) than middle distance swimmers (200 and 500)

Sprinters

- 15 X 50 w / 3 min RI
- 10 X 75 w / 3:30 RI
- 15 X broken (bkn) 100 (75 hard – 25 easy) w / 4-5 min RI
All 75's must be faster than their best 100
- 15 X bkn 100 w / 4-5 min RI
Descend in groups of 1-5 (each 100 faster than the one before. The last one of each group must be faster than the 75 split of their best 100)
- 6 X 100 w / 6 min RI
- 5 X 150 w / 5-10 min RI
Last 2 must be faster than the 150 split of their best 200

Middle Distance

- 20 X 50 w / 2-3 min RI
- 14 X 75 w / 3-5 min RI
- 10 X 100 w / 6 min RI
- 7 X 150 w / 4-5 min RI
- 5 X 200 w / 5-10 RI

TT V – Short Sprints – The purpose of this type of training is to produce speed. The sprints should not be longer than 25 yards/meters; they are always done from a dive and they should not be done to fatigue. The swimmers like to go as hard as they can and not worry about stroke technique during this portion of our training.

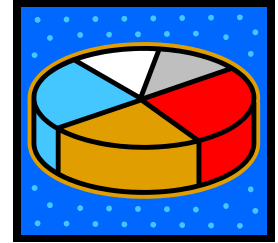
- 32 X 12 ½ w / 2 min RI
- 16 X 25 w / 2-3 min RI
- 16 X 25 w / 3 min RI alternating Free and BSOF



10 X 500 on the what?

PROPORTION OF EACH TRAINING TYPE TO BE USED

- TT I and II – 50% - 60%
- TT III – 20% - 25%
- TT IV – 3% - 5%
- TT V – 5% - 10%
 - These percentage recommendations and many of TT sets were borrowed from Cecil Colwin's test, *"Swimming into the 21st Century."*



SAMPLE – WORKOUT ORDER

- **Warm-up** – get the heart rate up to 140 – 150 and loosen up. I often use stroke drills here
- **Short Sprints** – This allows speed work while not fatigued
- **Major or Mine Aerobic Set**
- **Major Set** – your choice
- **Recovery Set**
- **Sprints/Relays/Challenges** – This is the time to produce fast swims while the swimmers are tired. This will help the swimmers understand that they can go fast even when they are fatigued.
- **Cool-Down** – This is very important to aid in recovery. Do not overlook this part of the workout.

SEASON BREAK DOWN

Early Season: Work on stroke technique, skills, and endurance; then begin to set goals for your team and each of its members. Most of the workout is a TT I and TT II levels with the addition of some TT V (short sprint) swims.

Mid-Season: Maintain your endurance work with the addition of special drills on starts, turns, and relay take-offs. The workload includes increasing amount of yardage as well as speed and race pace work. On the day before a meet, practice is about 50% training and 50% technique work with a shortened morning workout.

Championship Taper Season: The key word here is rest. Once again, talk with your experienced swimmers and find out how much rest each of them feel they need to be at their best for the championship meet for which they are training. A rule of thumb is that the distance swimmers need less rest than sprinters, and that older more mature bodies need more rest than young undeveloped ones. For those of you who coach both boys and girls, the boys will generally need more rest than the girls. We try to stay in the water just as long but cut back on the intensity of the yardage. This includes **NO** sprinting by anyone 3 days out from the big meet.

Post Season: Meet with each of your swimmers and talk about what you need to do to improve on this year's performance. Talk about off season work and goals for next year.

- There is an excellent example of a 15 week season, including morning practices in Dick Hannula's book, *"Coaching Swimming Successfully."*

RANDOM POINTS TO PONDER:

- A. All information is merely a guideline.
- B. Most ideas are not new, remember to ask and borrow.
- C. Remember that there is one event in high school swimming over 200 yards/meters. Basically we are a sprint oriented program and training for true long distance events has very little relevance.
- D. Each swimmer is an individual. You can easily have as many different workouts as you have lanes in your pool.
- E. READ, READ, READ! I suggest you begin with books by: Charles "Skip" Bird, Dick Hannula, Cecil Colwin, Mark Schubert, Ernie Maglischo, and Don Gambriel.
- F. The high school season is usually over in 12 – 15 weeks. You must fit whatever you do within these given parameters. My season is 12 weeks in length, I usually break the time down into an early season (weeks 1-3) during which work on endurance, conditioning, and technique work; mid or dual meet season (weeks 4-10), and championship season (weeks 11-12).
- G. I recommend that your start off with workouts which contain set periods of rest corresponding with the distance you plan to swim and the number of times you plan to repeat it. These groupings of distance, repetitions, and rest are referred to as a set.
- H. Talk to your swimmers. You will be amazed at how well most of them understand their sport. Find out if they usually have two practices a day and what they have done in the past. My first season as a coach was a success due to the guidance of some very gifted senior AAU swimmers.
- I. Don't fall in love with your ideas! Take the time to plan out your season but don't be afraid to change if something is not working.
- J. All pools are basically the same. It's what we do with our swimmer's time while they are in them that will determine the success of a program.



I hope that you find this of some help. Remember, if you have questions, ASK. One of the wonderful things about our sport and our coaching organization is the willingness of its members to share. I know than any member of NISCA would be willing to help out, and I have yet to meet a college coach who isn't willing to share his time and ideas. One a more personal note: my phone number is 715-532-5087; e-mail is GALusk@aol.com, and FAX 715-532-4244. If you prefer snail mail, my address is W6990 Falcon Avenue, Tony, Wisconsin 54563.

For those of you who are totally confused about where I'm located; I've retired from teaching, moved to the Tony, Wisconsin area, and only return to Alaska to coach each fall. It's a rough life but someone has to do it.

Have a great season and welcome to the world of high school coaching.

B. Rich Hood, Harry A. Burke High School – Omaha, Nebraska

The basic season breaks down into four phases or macro cycles. They are:

- #1 Pre-competition (aerobic)
- #2 Competition (race pace and anaerobic)
- #3 Taper
- #4 Championship season

The graphs represent the level of intensity during each of the weeks of training.

The primary emphasis for each day or practice is listed on the training calendar. The abbreviations are:

AT = anaerobic threshold training

VO₂ = VO₂ max training

D = Drill

RP – race pace

*Editors note: Coach Hood's plan is based on a 16 week season



MACRO CYCLE # 111/7 TO 12/10 = 5 WEEKS

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
WEEK						
<u>1</u>	7	8	9	10	11	12
<u>2</u>	14	15	16	17	18	19
<u>3</u>	21	22	23	24	25	26
<u>4</u>	28	29	30	1	2	3
<u>5</u>	5	6	7	8	9	10

WEEK 1

	MON. 7	TUES. 8	WED. 9	THURS. 10	FRI. 11	SAT. 12
AM						
PM	D	AT	VO₂	AT	VO₂	

WEEK 2

	MON. 14	TUES. 15	WED. 16	THURS. 17	FRI. 18	SAT. 19
AM	AT		D		AT	VO₂
PM	AT	VO₂	AT	VO₂	D	

WEEK 3

	MON. 21	TUES. 22	WED. 23	THURS. 24	FRI. 25	SAT. 26
AM	AT		D		AT	VO₂
PM	AT	VO₂	AT			

WEEK 4

	MON. 28	TUES. 29	WED. 30	THURS. 1	FRI. 2	SAT. 3
AM	AT		D		AT	VO₂
PM	AT	VO₂	AT	RP	D	

WEEK 5

	MON. 5	TUES. 6	WED. 7	THURS. 8	FRI. 9	SAT. 10
AM	AT		AT		AT	RP
PM	AT	Bryan D	AT	D	Burke D	Invite

MACRO CYCLE # 212/12 TO 1/14 = 5 WEEKS

WEEK	MON.	TUES.	WED.	THURS.	FRI.	SAT.
1	12	13	14	15	16	17
2	19	20	21	22	23	24
3	26	27	28	29	30	31
4	2	3	4	5	5	7
5	9	10	11	12	13	14

WEEK 1

	MON. 12	TUES. 13	WED. 14	THURS. 15	FRI. 16	SAT. 17
AM	AT			VO ₂		RP
PM	VO ₂	Millard No. RP	VO ₂	AT	LSE INVITE D	

WEEK 2

	MON. 19	TUES. 20	WED. 21	THURS. 22	FRI. 23	SAT. 24
AM	AT	AT		VO ₂	AT	AT
PM	VO ₂	RP	VO ₂	AT		

WEEK 3

	MON. 26	TUES. 27	WED. 28	THURS. 29	FRI. 30	SAT. 31
AM	AT	RP		AT		AT
PM	VO₂	AT	VO₂	RP	VO₂	

WEEK 4

	MON. 2	TUES. 3	WED. 4	THURS. 5	FRI. 6	SAT. 7
AM	AT	AT		AT		RP
PM	VO₂	VO₂	AT	RP	AT RAM FINALS	

WEEK 5

	MON. 12	TUES. 13	WED. 14	THURS. 15	FRI. 16	SAT. 17
AM	AT			AT		RP
PM	VO₂	Northwest RP	VO₂	RP	VO₂	

MACRO CYCLE # 31/16 TO 2/11 = 4 WEEKS

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
WEEK						
<u>1</u>	16	17	18	19	20	21
<u>2</u>	23	24	25	26	27	28
<u>3</u>	30	31	1	2	3	4
<u>4</u>	6	7	8	9	10	11

WEEK 1

	MON. 16	TUES. 17	WED. 18	THURS. 19	FRI. 20	SAT. 21
AM	VO₂			AT		RP
PM	AT	Millard So. RP	VO₂	Bryan RP	AT	

WEEK 2

	MON. 23	TUES. 24	WED. 25	THURS. 26	FRI. 27	SAT. 28
AM	VO₂					RP
PM	AT	RP	VO₂	RP	AT	

WEEK 3

	MON. 30	TUES. 31	WED. 1	THURS. 2	FRI. 3	SAT. 4
AM	AT			AT		RP
PM	VO ₂	RP	AT	VO ₂	AT	MILLARD SOUTH INVITE

WEEK 4

	MON. 6	TUES. 7	WED. 8	THURS. 9	FRI. 10	SAT. 11
AM	AT				RP	RP
PM	RP	AT	VO ₂	AT	METRO	METRO

WEEK _____

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
AM						
PM						

MACRO CYCLE # 42/13 TO 2/25 = 2 WEEKS

	MON.	TUES.	WED.	THURS.	FRI.	SAT.
WEEK <u>1</u>	13	14	15	16	17	18
<u>2</u>	20	21	22	23	24	25

WEEK 1

	MON. 13	TUES. 14	WED. 15	THURS. 16	FRI. 17	SAT. 18
AM						
PM	AT	RP	AT	RP	AT	

WEEK 2

	MON. 20	TUES. 21	WED. 22	THURS. 23	FRI. 24	SAT. 25
AM						
PM	AT	AT	AT	AT	STATE	

C. Lanny Landtroop, Kingwood High School – Kingwood, Texas

KINGWOOD HIGH SCHOOL, KINGWOOD TEXAS - COACH LANNY LANDTROOP TENTATIVE SEASON PLAN FOR 196-1997

SPECIAL DATES	Holiday Zone Meet Week 10	TISCA STATE INVITATIONAL (final Exams) Week 16	Mandatory 5 Day Moratorium Week 17	DISTRICT MEET Week 21	REGIONAL MEET Week 23	STATE MEET Week 25
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DRYLAND CIRCUIT

as a group the first 8 weeks on TT includes flexibility, medicine ball jump ropes, tubing, benches

Core group exercises (mid section) five exercises, systematically building from 5 to 50 reps each (end w/ 250 abs)

After the first 8 - 10 weeks, these are done on swimmers own.

Weights - M W F - mainly Nautilus

Weeks 1 - 8 - (2x10) Weeks 8 - 16 (3 sets, 10, 6, 3) Weeks 18 - 21 (2 sets, 10,6) Weeks 22 - 24 (1 set, decreasing)

SWIM TRAINING:

EARLY SEASON Weeks 1 - 10	DUAL SEASON Weeks 11 - 18	Mini taper Week 17 Moratorium	DUAL SEASON II Weeks 18 - 20	CHAMPIONSHIP Weeks 21 - 25
stroke mechanics, drills, building endurance base some speed work daily skill work (starts, turns, exchanges, relays)	endurance maintenance, growing anaerobic training, some race pace, stroke drills in warm up and recovery	decrease during finals	endurance maintenance, more race pace and sprint, recovery important, drills in warm-up and recovery	varies by sex, size, experience, increased rest between quality efforts, skills work

MENTAL TRAINING:

The first twelve weeks approximately two weeks is spent on each of six different areas. Thereafter they are reviewed in 5 - 10 minute sessions as needed. The subjects are SELF-AWARENESS, GOAL SETTING, RELAXATION, SELF-TALK, IMAGERY AND ATTENTIONAL CONTROL.

Periodic mini sessions to reinforce skills

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25					
SEPT					OCT					NOV					DEC					JAN					FEB				

III FLEXIBILITY AND WEIGHT TRAINING

Tom Harwood, Spring High School – Spring, Texas

A. Flexibility

Flexibility simply means that a muscle can move through the entire range of motion easily and efficiently. When all muscles acting on the joint are flexible, the joint can move through its complete normal range of motion. Movement is basically the same for all; it is however, individualized by specific anatomical structures and developed or retarded by each individual's limitations or work ethic. The following are a few of the positive effects of stretching:



1. Reduce injuries due to pull and tears.
2. Increase the range of movement inherent in the activity.
3. Warm-up deep muscle fiber.
4. Warm-up joint fluids, lubricants, and synovial fluids.
5. Elevate heart rate, therefore increasing the flow of blood.
6. Prepare one mentally for the upcoming task.

I don't believe in stretching cold muscles, therefore; prior to stretching we will engage in an activity to elevate the heart rate, jumping rope, laps around a gym and jumping activity. Use your imagination. This activity will usually last 3-5 minutes.

Our stretching will be done each MORNING prior to swimming or weights. I don't believe it to be as important prior to a second practice. Our flexibility program will last between 10-15 minutes including the "pre-stretching" activity.

The way you stretch is VERY IMPORTANT. Be sure to insist on correct form while stretching and focus on the area being stretched. QUALITY FIRST

The following are our pre-stretches which take place after our warm up activity.

1. **Streamline Stretch** – up on toes, nice and tight, elbows and knees lock out.
2. **Arm Circles** – left/right arm front and back, 10 each way.
3. **Neck Roll** – circle pattern 5 each way
4. **Trunk Twister** – left to right, back and forth.

We do two phases to each of our stretches. Phase I is easy and we hold for a 10 count. At this time one feels the muscle "stretch" slightly. At the end of our ten count we relax, breathe deep, blow it out – then perform the same stretch again only taking it further! At no time should the athlete feel pain – if this occurs, have them back off. Hold phase two for a ten count again.

Instill the following:

1. **Proper form** - head position, back straight, or whatever the stretch calls for.
2. **Controlled stretching** – absolutely NO BOUNCING!
3. **Quality first.**

Two - Phase Stretches

1. Bend over stretch - "hang down" touch toes.
2. Left over right (legs) - "hang down" touch toes, and then right over left.
3. Groin stretch – wide split right lean/left lean/ middle.

Sitting position

4. Hurdler's stretch – sole of left foot placed on the inside right knee.
5. Hurdler's stretch – reverse #4
6. Spread Eagle – left/right/middle
7. Spinal rotation – left/right
8. Sit and reach
9. Arm over head – left/right
10. Butterfly stretch
11. Push up stretch



B. WEIGHT TRAINING

Much has been discussed about the pros and cons of weight training for swimmers. I am a firm believer that power and explosion must be developed through the use of weights. Unfortunately, most high school weight rooms are not equipped to facilitate swimmers, especially not one who is barely 100 lbs. soaking wet. If you have access to Universal, hammer strength, Vasa, etc., those are much more accommodating, and safer for the younger athlete.

Our weight room is strictly "free weight" with one cable pull down machine. I spend the first two/three sessions preaching weight room safety first to all my athletes in addition to demonstrating proper lifting technique.

We focus on these basic exercises:

1. Bench press
2. Incline
3. Squat
4. Leg extensions
5. Pull downs
6. Dips
7. Box jumps

Early Season – circuit training – 30 sec. per station or 2 X 20 reps.

In addition to the weight training we also do abdominal work (sit up in various positions), usually totaling 200-300 each morning.

At some point in time depending on your state's schedule – a coach has to determine which is more important, swimming or weights? When that time comes for us – the weights are the first portion of our program to go. Generally speaking, we stop lifting about two weeks out of our big meet. Prior to the elimination of weights we are lifting approximately 60% of our maximum.

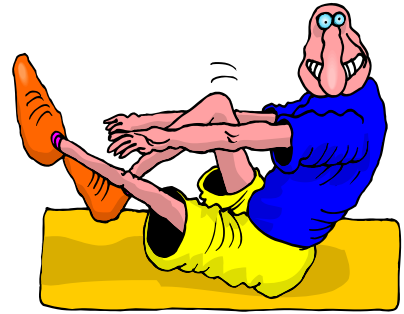
Always remember that weight lifting can assist in the development of your athletes. Safety must always be of primary concern. Instruct your swimmers on “how to” lift properly. In some cases you may have to supplement wooden rods or collarless bars to assist the weaker athlete, or develop strength in other areas (dry land.)

Land Exercises for Competitive Swimming

1. Sitting position - hands behind the neck, legs spread. Bend trunk forward and downward, then return to sitting position. Repeat 25 – 30 times.
2. Lying on the back - hands over head, do sit-ups, stretching as far forward as possible. Repeat 20 to 40 times. Alternate left leg and right leg.
3. Sitting position – hands at the back of the neck, lift both knees together, and then extend them to the starting position. Repeat 25 to 50 times.
4. Sitting position – hands at the back of the neck, raise knees alternately in a motion similar to riding a bicycle. Legs should be kept off the floor during the exercise. Repeat 50 to 100 times.
5. Lying face down – hands in back of the neck, raise the head and chest while keeping the feet down. Repeat 20 to 40 times.
6. Sitting position – arms locked straight behind the head, whip the legs alternately up and down from the hip. Repeat 50 to 100 times. Feet remain off the deck at all times.
7. Lying face down – hands in palm down position at the sides, raise both legs together and return to starting position. Repeat 20 to 40 times.
8. Sitting Position – arms extended to the side, raise both legs off the floor as high as possible while in a sitting position and touch the toes. Return to the starting position. Repeat in rhythm 20 to 40 times.
9. Lying face down – arms extended overhead with the arms, head, chest, and legs as high off the floor as possible, spread the arms and legs simultaneously and return to the starting position. Repeat in rhythm 30 to 50 times
10. Push-up position – toes back, lift one leg at a time. Remain stretched throughout the exercise, and raise the leg from the hip. Repeat 20 to 40 times with each leg.
11. Lying face down – the arms and legs extended, whip the arms and legs up and down alternately in rhythm 100 to 200 times, keep the head from moving side to side. (right leg lifts with left arm, etc.)
12. Sitting position – legs spread, arms horizontally at the side. Swing the legs and arms across the mid-line of the body, return to the starting position. Lift both lefts and cross over rights, then alternate. Repeat 40 to 80 times.



13. Sitting in the hurdle position – bend the trunk forward on the extended leg to stretch the leg muscles. Repeat 40 to 80 times.
14. Sitting position – hands in back of the neck with the legs spread. Cross the legs over the mid-line of the body with the right leg over the left, then alternate; simultaneously twist the shoulders and the trunk with the bottom leg. Keep the legs off the floor during the entire exercise. Repeat 30 to 60 times.
15. Lying on the side with the legs together – whip the legs forward and backward alternately 160 times on each side, keep the back arched.
16. Lying on the side with the legs together – whip the top leg up and down 100 times on each side, keep the back arched.
17. Standing position – the arms extended in a horizontal position; rotate the arms in small circles, forward ten times, backward ten times. Repeat 10 to 20 times.
18. In push-up position with the toes extended backwards, do 15 push-ups, Repeat 3 times
19. Lying face down with the arms extended, draw in the stomach and extend the toes; then relax. Repeat 20 times.



Double Exercises

1. Praising Exercise – Lying face down on the floor with the arms fully extended overhead with pressure support at the ankles; slowly raise the arms, head, and trunk and return to the starting position. Repeat 25 times.
2. Leg Raises – Lying face down the arms folded and forehead resting on the hands with support applied on the upper back; slowly raise both legs off the floor, and slowly bend from side to side. Repeat 25 times.
3. Side Sit-ups – Lying on the side with the hands back of the neck and support applied by the partner placing their hands in between the legs, slowly raise the trunk sideward and upward and return to the starting position. Then execute on the other side. Repeat 15 to 30 times.
4. Side to Side Leg – Lying on the back with both legs perpendicular and the hands on the back of the neck. Firm pressure support is put on the elbows. Slowly swing the legs from side to side through the perpendicular position. Repeat 30 to 40 times.

