A STUDY OF DYNAMIC STRENGTH INDEX IN THAI NATIONAL BADMINTON PLAYERS:
CASE PRESENTATION
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A STUDY OF DYNAMIC STRENGTH INDEX IN THAI NATIONAL BADMINTON PLAYERS

INTRODUCTION
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27 Competitions / year
HSBC BWF World Tour Super Final, 1000, 750, 500, and 300

2 Competitions / month (at least)

1st Players need to improve their world ranking
The characteristics of badminton players require a certain level of strength, power, stamina, and flexibility.

Badminton requires quick changes of direction, jumps, and lunges at the net and rapid arm movements from a variety of postural positions.

Fast first step and quick return to center. These qualities help them intercept a shuttlecock, obtain more chances for hard smash, turn themselves into an offensive pattern of playing, and opportunity to get scores leading to the victory.

Successfully in most of sports is highly dependent on physical fitness characteristics including strength and power.
While they always have a lot of competition, what kind of training program is appropriate for badminton players?

To illustrate changes in dynamic strength index of Thai national badminton players among 2 competitions.
A STUDY OF DYNAMIC STRENGTH INDEX IN THAI NATIONAL BADMINTON PLAYERS

OUR PROCESS

DYNAMIC STRENGTH INDEX TEST

2 COMPETITIONS

DYNAMIC STRENGTH INDEX TEST

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OUR PROCESS

Counter Movement Jump (CMJ)

Isometric Mid-Thigh Pull (IMTP)

PEAK FORCE CMJ

PEAK FORCE IMTP

Strength Index (DSI)


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**MAXIMUM STRENGTH TRAINING**

**DYNAMIC STRENGTH INDEX RATIO**

**BALLISTIC STRENGTH TRAINING**

**CONCURRENT TRAINING**

**MAXIMUM STRENGTH TRAINING**

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DISCUSSION / CONCLUSION

MAXIMUM STRENGTH TRAINING

CONCURRENT TRAINING

BALLISTIC STRENGTH TRAINING

DYNAMIC STRENGTH INDEX VALUE

Before DSI After DSI

MALE (A) 0.86303 0.90008
MALE (B) 0.73892 0.80548
MALE (C) 0.71257 0.74108
FEMALE 0.77904 0.78804
ISOMETRIC MID-THIGH PULL PEAK FORCE

- MALE (A): Before IMTP (2238.5 N), After IMTP (2171.7 N)
- MALE (B): Before IMTP (2683.1 N), After IMTP (2327.8 N)
- MALE (C): Before IMTP (2388.1 N), After IMTP (2327.8 N)
- FEMALE: Before IMTP (1677.2 N), After IMTP (1672 N)

DISCUSSION / CONCLUSION
SUGGESTION

₂ of them should be on maximum strength training program.
₂ of them should be on concurrent training program.

DECREASING
Isometric mid-thigh pull peak force that influence on strength performance.

DSI may be used as a means of assessing an athlete’s lower and upper-body strength qualities and guide future training interventions.

DSI cannot tell “How much their strength” but can tell “training status now”.

A STUDY OF DYNAMIC STRENGTH INDEX IN THAI NATIONAL BADMINTON PLAYERS
DISCUSSION / CONCLUSION
THANK YOU FOR YOUR TIME

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