

# Dynamic shoulder key to touchdown passes

By Kevin Schultz, San Francisco Chronicle

About 2 million years ago, humankind's ancient ancestors developed a shoulder structure that allowed them to throw spears and rocks to hunt prey, scientists say.

That adaptation moved modern humans away from shoulders built for climbing and swinging from branches and today gives them the ability to throw, say, a football, UCSF experts said.

"The same physical and mental abilities that evolved to allow us to thrive as a species allowed us to play football," said Nathan Young, a UCSF evolutionary biologist and orthopedic surgeon who has studied the human shoulder and its evolutionary past for years.

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